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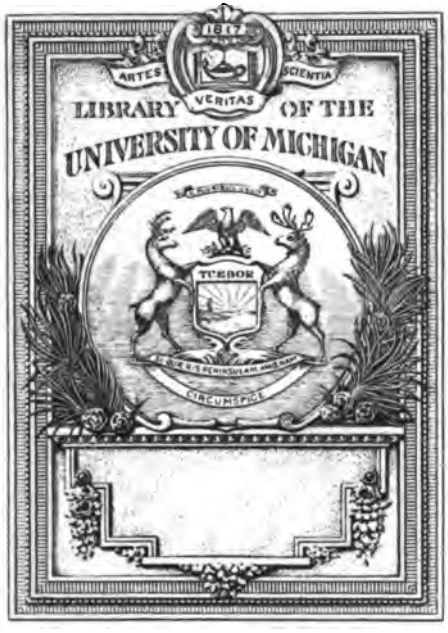

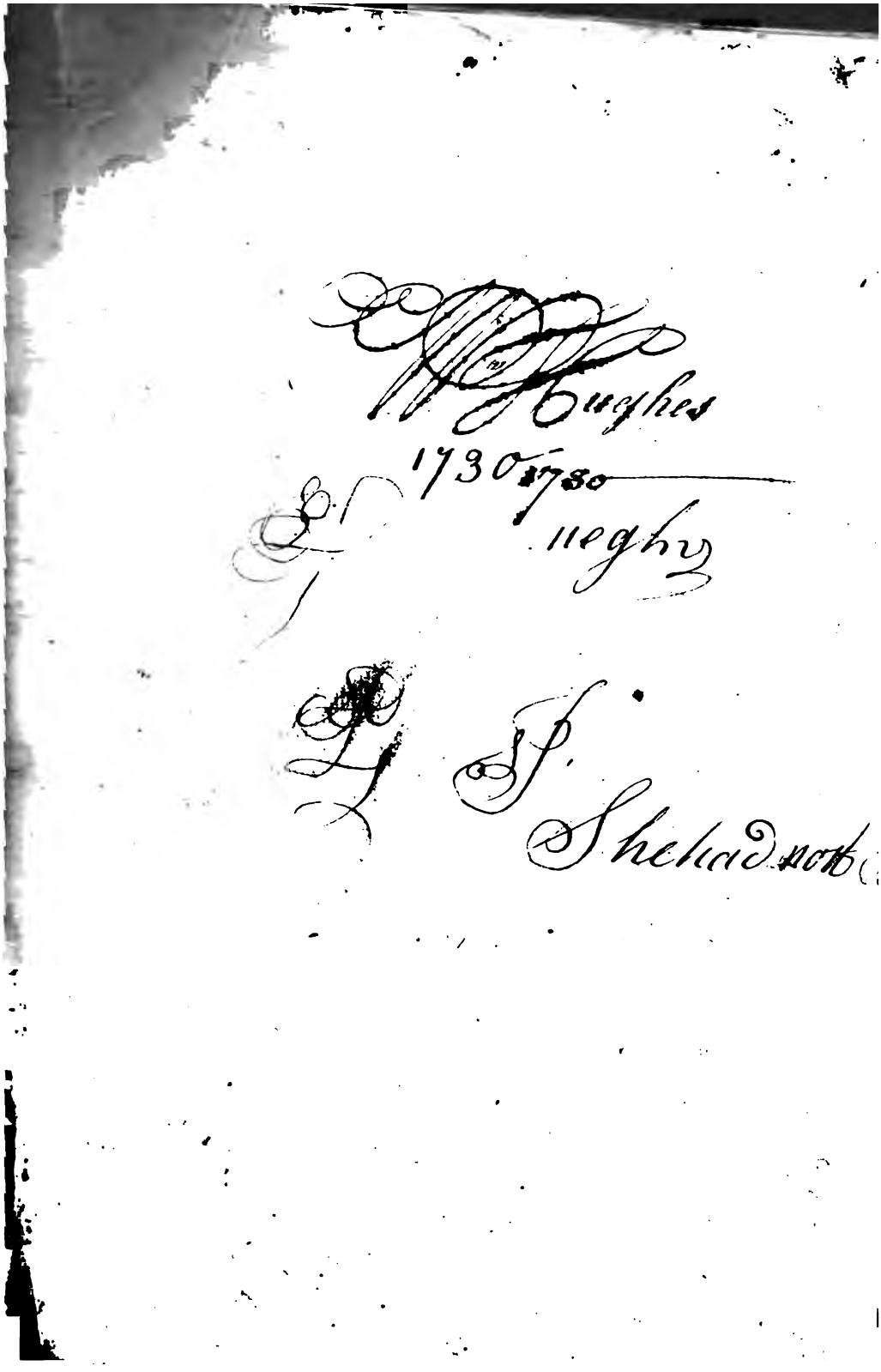

Effigies Edwardi Lhuyd A.
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THE Merchant's Magazine: OR, Trades Man's Treasury,

CONTAINING,

I. **Arithmetick** in Whole *Numbers* and *Fractions*, Vulgar and Decimal; with the Reason and Demonstration of each Rule; Adorn'd with curious Copper-Cuts of the chief Tables and Titles.

II. **Merchants Accompts**, or a most concise Way of Casting up the Value of *Merchandize*, *Tare* and *Trett*, *Interest of Coin*, *Rule of Barter*, *Loss and Gain*, *Fellowship*, *Equation of Payments*, and several Matters relating to *Exchange*, never before made Publick.

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IV. **Maxims** concerning *Bills of Exchange*, *Factors* and *Factorage*: The Law concerning *Brokers*, &c.

V. The **Post of Letters** to and from Foreign Countries; and the Days when Males are sent to, and due from those Countries.

VI. An Account of the **Commodities** produced by all Countries: Their chief Towns of Trade, and bigness of the Country compared with *England*.

VII. A *Merchant* or *Trader's* **Dictionary**, explaining the most difficult Terms used in Trade.

VIII. **Precedents** of Merchants Writings; as, *Bills of Lading*, *Invoyces*, *Bills of Exchange*, *Letters of Credit*, *Charter-Parties*, &c. With many other Things not Extant before, as by the *Table of Contents* appears.

Accommodated chiefly to the Practice of *Merchants* and *Tradesmen*: But is likewise useful for Schools, Banks, Diversion of Gentlemen, Business of Mechanicks, and Officers of the King's Custom and Excise.

The Seventh Impression Corrected and Improved.

By E. HATTON, *Philomathemat.*

Arbore dejecta quivis ligna colligit. Juven.

LOND[illegible]V, P[illegible]ted for *Chr. Coningsby*, at the *Ink-Bottle*, over-against *Clifford* [illegible] *Fetter-Lane*, *Fleet-Street*; and *Dan. Midwinter*, at the *Three Cro.* *Paul's* Church-Yard. MDCCXIX.

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TO

Colonel JAMES SEAMER.

SIR,

THE *following Treatiſe having, in a few Years, paſſed ſix Impreſſions of about Eight Thouſand Books: I do by this ſhort Addreſs dedicate this Seventh Edition as a Memorial of Your Proficiency in Arts and Affection to Artiſts; Your early Genius, not only to that moſt polite, commendable, and commodious Art of Writing, but thoſe of Drawing and Engraving; Your true Taſte of the Principles and Elegancies in Painting, as Deſign, Colour, good Manner, Attitudes, Contraſt, the Grand Guſto, &c. Your diſcerning Faculty in diſcovering the Occult Qualities of Gems, or your penetrating Science in the profound Miſtery of a Lapidary; Your accurate Decorum*

Rectitude in your Commerce; Your Prudence and Diſcretion in your whole Oeconomy, as well as your Capacity and Uſefulneſs in your more Publick Stations to this moſt Honourable City in General, and Your very Worſhipful Company in Particular: And above all, Your Religious Wiſdom of adhering in Your Affections to the Power in Being, and our Excellent Church and Conſtitution, which would each require ſome Pages in the due Expreſſion of Your Merit. But leaſt I ſhould expoſe my Inſufficiency for ſuch an Attempt, I ſhall decline Expatiating, as might be juſtly done on this Occaſion, which I do in ſome Meaſure embrace to let Others know what I have been for many Years, and in many Inſtances bound to acknowledge, that I am,

Your obliged,

and moſt Humble Servant,

E. HATTON.

THE PREFACE TO THE READER.

THE *First* Impreſſion of this Treatiſe (though not ſo perfect in every reſpect as I could have wiſhed, as being Compoſed, Printed and Publiſhed with too much Precipitation) having however, for its Uſefulneſs and Familiarity, found Acceptation in the World, exceeding my Expectation: I thought my ſelf obliged, in point of Gratitude, to endeavour in the *Second*, not only to rectifie and compleat what was amiſs or imperfect in the Former, but alſo to ſtudy how (according to *my utmoſt Ability*) I might make it a Book farther uſeful to the Publick. And in order thereto, I made many conſiderable Additions: as, in *Arithmetick in whole Numbers*, I added a Table of the Latin or Literal Numbers; ſeveral Tables in Addition, and a Diſcourſe of the Uſe of thoſe Tables: In *Diviſion* a new Demonſtration; and the Manner of reducing any Summ of Foreign Coin into Engliſh, for the ready caſting-up Bills of Exchange. In *Vulgar Fractions*, I added the Reaſon of all thoſe myſterious Rules given for Reducing, Adding, Subſtracting, Multiplying and Dividing thereof; and did the like in Decimals, ſhewing how the Nature of them agrees with Vulgar. In *Merchants Accompts*, I added the Reaſon of the moſt abſtruſe Rules given for the brief working of Queſtions in *Practice*; and a more eaſie and (in many Caſes) conciſe Method of finding the Tare of any Commodity: And in *Exchange* I added ſeveral uſeful Tables of Coin and Weight, with the Manner of calculating the *Par* of Foreign Coin by the Weight and Fineneſs: As alſo, an Explanation of the Tables of the Courſe of Exchange, and Diverſity of Proportions between Gold and Silver, Fine or Standard. In *Book-keeping*, I added Examples of a Caſh-Book, Books of Houſhold Expences, and Charges of Merchandize,

chandize, and ſhewed how the Latter are poſted into the Former, and thence into the *Ledger*: Where, as alſo in the *Journal*, I added References to the *Folio*'s where every Parcel of Goods or other Matter is placed, both Debtor and Creditor in the *Ledger*, and likewiſe a better and more Natural way of keeping an Alphabet of Names. As to Maxims for drawing and accepting Bills of Exchange, I made them more copious and methodical; and added ſeveral concerning Factors, as may be ſeen in Chap. 11. And I likewiſe added *Chap.* 12. which ſhews what Commodities are produced by all Countries in the World, with the Names of their chief Towns of Trade, and the Magnitude of ſuch Country compared with *England*, according to the beſt Account I could learn by Reading, Diſcourſe, or Calculation, and ſhewed when Letters may be ſent to and received from thoſe Countries: I alſo inſerted the Law concerning Intereſt of Money. And in *Chap.* 14. I explained all the myſterious Terms or Words I could think on, that relate to Merchandizing, many of which I am ſure are not to be found in any Expoſitor extant. And laſtly, I added the greateſt Variety of Merchants Precedents, in the beſt Method that are any where (to my Knowledge) exhibited; which will not only be uſeful for Practice to be tranſcribed upon occaſion, but alſo will afford much Light into the Nature of that part of Trade, which they relate to. And I have given an Abſtract of the new Statute concerning the Poſtage of Inland and Foreign Letters, and the Act relating to the Length and Breadth of *Yorkſhire*-Cloth, and of the Value of Coin in *America*, and the true Way of finding Diſcount.

And thus I have given the Reader a Summary Account of the moſt material Additions, though there are very many (beſides ſome few Alterations and Additions in the Third, and theſe other Impreſſions) which I have here omitted to mention, and I hope the whole will prove not only pleaſant, but profitable; eſpecially to the Younger ſort of moſt Profeſſions, and more particularly to the Merchant, for whoſe Province it was chiefly calculated; well knowing, that whatever conduceth to the facile and ſpeedy Carrying on of Trade, does alſo contribute to the Augmentation of the Bulk thereof, and conſequently to the Riches and Grandour of the Nation; For as the ingenious and accompliſh'd Merchant, Sir *Joſiah Child*, ſays, *The Greatneſs of this Kingdom depends on Foreign Trade; and therefore the Intereſt of Trade is not unbecoming Perſons of the higheſt Rank.* 'Tis obſervable of the *Dutch*, that they Erect the moſt

Noble

Noble Tombs and Statues to the Memory of their Famous Sea-Commanders; which is a certain Indication, that they are ſenſible of the vaſt Advantages, which accrues to 'em by their Shipping, and I heartily wiſh we in this Nation were not leſs apprehenſive thereof, we ſhould not ſee ſo many Eminent Perſons of competent Fortunes, ſquander the ſame away, becauſe they know not how to employ or improve 'em, and that cauſed by their Parents looking on their Extract to be above the Sphere of Commerce. Indeed the ill Practices of ſome Traders (eſpecially the meaner Sort of Retailers) ſuch as Lying and Cheating, are two great Cauſes of bringing an Odium on that Name: But if it be conſidered on the other Hand, that ſuch Immoralities are not Eſſential to Trade, and that there are many, and I hope the greater part, that may and do grow rich by Traffick, who make Juſtice their Rule, and their Word a ſtrict Obligation; then ſuch Objections againſt Tradeſmen will ſeem vain and frivolous: But 'tis the Foreign Trade, or Merchandizing, that I would chiefly here perſwade ſome of our Perſons of Quality to have a due Eſteem of: Other Arts or Myſteries they uſually value, according to the Profoundneſs and Excellencies *of their* Nature, or elſe to the Advantages uſually attending them; for both which, the Employment of a Merchant is as valuable, as that of a Lawyer, Phyſician, or any other Profeſſion whatſoever: For if the neceſſary Perfections and Qualities of a truly accompliſhed Merchant be conſidered with reſpect to his Natural, Moral, and acquired Parts, it will place him (in the Opinion of the Judicious) far above Contempt.

For ſuch a Merchant, as to his Natural parts, muſt have a quick Apprehenſion, a ſolid Judgment, and a ſound Conſtitution of Body; his Apprehenſion to capacitate him for the underſtanding all that great Myſtery of his Honourable Calling; his Judgment to ſecure him from being eaſily deceived and impoſed on by thoſe with whom he has Dealings, and a good Conſtitution and Soundneſs of Body, that he may do Variety of Buſineſs in different Places in a ſhort Time.

His *Morals* muſt likewiſe be no leſs evident; his *Fortitude* ſuch as gives him an undaunted Courage to adventure his Eſtate at Sea, notwithſtanding all Dangers; and alſo to correſpond and diſcourſe not only with Foreigners and Barbarians, but with Princes and Stateſmen; and (in ſhort) to inſiſt on his Right from all Perſons in all Places whatſoever. And as his *Fortitude* muſt be great, ſo his Pru-

dence

dence ſets Bounds thereto, that it neither Degenerate into Impudence nor Fool-hardineſs; for 'tis by this that a juſt Ballance and a due Poize is kept in all his Actions; this is the Pole-ſtar that directs him how to ſteer in his many Novel and Momentous Concerns; by this he firſt fixes on the moſt probable and ſecure way of enriching himſelf, and then proſecutes his Deſigns by the moſt proper Methods: This teaches him how to manage all his Domeſtick Concerns according to the various Mutations of things abroad; and 'tis his Prudence, whereby his Importations, Exportations, Buying, Selling, Exchanging by Bills, Bartering, Accompts, and all his Dealings are ſo ordered and carried on, as tend not only to his own, but the Intereſt of Trade in general. And as his *Prudence* makes him act wiſely, ſo his *Juſtice* makes him act honeſtly: This reſtrains him from affirming a Commodity to be good, when 'tis bad; or Weight and Meaſure when deficient; or if he does ſo through Ignorance of ſuch Defects, he ſcruples not to make a proportionable Abatement. This alſo makes him punctual to his Word in all his Affairs, which procures and encreaſeth his Credit; his Credit augmenteth the Bulk of Trade, and that Riches; and as an ingenious Author has it, *The Merit of the Merchant is above all other Subjects; for while he is untouch'd in his Credit, his Handwriting is a portable Coin for the Service of his Fellow-Citizen, and his Word the Gold of Ophyr to the Country where he reſides.* This Merchant is not only accounted an honeſt Man by his Neighbours, (which is ſufficient for others) for his Character is well-known in Foreign Parts, as his Name or the Commodities de deals in; and by acquireing the Epithete of a *Juſt* Man, he can carry on as great a Trade, as he, that wants that, can do with treble his Stock. And if we conſider his Temperance, Gravity, and Affability, they are ſuch as improve his ſpacious Capacity and Intellect; the firſt makes him able to perform the moſt intricate part of his Buſineſs at any time, whenever it occurs; the ſecond makes him ſuited to, and become his high and honourable Employment; and the third of an eaſie Acceſs, gains him Love and Affection, and makes all that knows him delight to deal with him.

And as this Merchant is thus qualified with reſpect to his Natural Parts and Morals, ſo his *Acquired Parts* are ſuch as fit him for the Practice of that great and copious Undertaking, to perform it with Eaſe and Satisfaction, and makes him a fit Correſpondent or Companion for the moſt Noble or Judicious. To inſtance in

ſome

ſome of the neceſſary Accompliſhments which properly denominate him a Merchant: He underſtands not only the Language, and Cuſtoms (with reſpect to Trade) of the Place where he reſides; but alſo thoſe of ſuch Parts of the World where he has any conſiderable Traffick: He writes a fair and legible Hand, and the Matter in a good Style, for ſatisfaction not only of Foreigners, who may not well underſtand his Dialect, but of Judges and Magiſtrates (in Caſe of Conteſt) who may be unacquainted with the Myſteries of Merchantile Concerns: He is likewiſe well verſed in Accounts, whereby he can do his buſineſs the ſhorteſt and ſureſt Way: And in *Book-keeping*, by Debtor and Creditor, which informs him with Eaſe and Certainty how Matters ſtand at any time with reſpect to *Men*, *Money* or *Merchandize*, and to Profit and Loſs, whether he goes forward or backward, grows Rich or Poor. He is likewiſe a good Proficient in Mathematical Learning, as in *Geometry*, by which he knows how to meaſure Board, or Timber, or other Things, relating to his Trade; as guaging Wine and Oyl Veſſels, *&c.* In Navigation, whereby he knows the Diſtance and Rombs leading to the moſt noted Ports or Places of Trade which are of uſe to him in diſcourſe and Agreements with Maſters of Ships, *&c.* In *Geography*, thereby to know the Situation of the moſt remarkable Places of Traffick, what Commodities they produce, and alſo the Cuſtoms, Subſidies and Impoſitions paid upon Exportation or Importation, the Manner of buying and Selling, with the Value of their Coins, Weights and Meaſures. Add to all this the clear Notions he has of the great Myſteries of Exchange; the Reaſon of its Riſing and Falling, the Laws and Cuſtoms uſed in Drawing, Accepting, Endorſing, and Proteſting Bills of Exchange, and the Quantity made up for Sale, Quality and Uſe of the moſt material and beſt Commodities, together with the Political part of Trade, as the Intereſt of all Countries, with reſpect to all Commodities, *i. e.* which are moſt proper for, or are to be prohibited Exportation, or Importation in this or that Country, and many other things; which, ſhould I particularize it would ſwell this Epiſtle beyond due proportion to the ſubſequent Treatiſe; all which a compleat Merchant muſt neceſſarily be acquainted with, in order to the qualifying him for the judicious Performance of his own Buſineſs, and that of his Country in a Court of Merchants. So that we may well conclude with the fore-cited ingenious Author, That *of this*

Study, as well as others, it may be ſaid, There is Infinity in it, none, though of the largeſt Intellects and Experience, being able to fathom its utmoſt Depth.

The *Book-keeping Part*, I purpoſely abbreviated to prevent diſcouraging the Reader in his firſt Attempts to acquire the Knowledge thereof, being very well aſſured many younger Learners have been confounded by the Multiplicity of Rules and Examples; for the ſeveral Entries in the *Waſte-Book*, *Journal*, and *Ledger*, and *Ballancing*, being numerous and prolix, make it next to impoſſible they ſhould have a juſt Idea of the Tendency thereof: I have therefore for the ſake of ſuch made the Examples few, and the Rules for Poſting and Ballancing plain and eaſie to be apprehended; and for thoſe who have acquired more Knowledge in this Art, I have given ſuch Variety of Caſes and Rules as may be a help to their Memory, as well as a Guide to thoſe who are not ſo good Proficients; and had time permitted, I ſhould have publiſh'd a Treatiſe by it ſelf of Rules and Examples of the moſt myſterious Parts of *Book-keeping*. I muſt aſſure the Reader, that I have proceeded in compoſing the following Pages, in the moſt Familiar, Rational and Copious Method I could think proper in this Treatiſe, and have endeavoured throughout the whole, to prevent Errour, and to explain thoſe things moſt clearly, which others have either but tranſiently touched, or wholly omitted.

TO

To the Ingenious Author.

BY Numbers powerful, and harmonious Aid,
This ſtately Fabrick of the World was made.
The mighty Fiat *was no ſooner ſaid,*
But tuneful Numbers readily obey'd,
And the rude Chaos, *Form and Beauty had.*
Since, to Mankind ſubſervient they become,
And ſuffer not that his wild Fancy roam,
And when it erring ſtrays, conduct it home.
By a long Series *found of mighty uſe,*
Humane Affairs, to Method to reduce.
By theſe, (after long Hazard, Toil, and Pains,
Th' adventrous Merchant counts his Loſs or Gains,
What is his Charge, and what that Charge maintains.
By theſe, each Art, and Science, is made known,
And their dark Myſteries reveal'd and ſhewn.
By theſe, we Wars and Sieges undertake,
Great Conqueſts gain, and brave Defences make.
By theſe we ſadly count for a paſt Life,
Made up of Labour, Sorrow, Care, and Strife.
By theſe, we compaſs Earth, and Seas about,
By theſe, all's done, and nothing done without.
Yet, we were in Traditions dull Track got,
And this Age copy'd what a former wrote,
And talk'd thereof as Parrots do by rote.
But you, to ſhow your Pity, and your Love,
Reaſon and Practice make together move,
And a dull Age, as 'twere by Force improve.
Whilſt others, poorly coaſt along the Shoar,
By Reaſon's Compaſs, you have ventur'd o're,
And taught us foreign Truths unknown before.
Go on, but know, great Danger you muſt run,
Of Rocks call'd Criticks, *you may ſpilt upon;*
I'll but this ſhort Deſcription of 'em mention,
They all things Damn for want of Apprehenſion.
But (for their Int'reſt) let the Wiſe be kind,
By this they'll judge what ſtill remains behind
In the Rich Treaſury of your Wealthy Mind.

P. Cleſſold.

To my very Ingenious Friend, the Author of the following Treatiſe.

OUR Youth Arithmetick like Tricks are taught,
Which Monkeys are to do by Practice brought;
And hardly the Foundation better know,
Or Reaſon of their working Numbers ſo;
But mimick juſt as they ſee others do.
'Tis you, my Friend, alone have took away
This Cloud of Ignorance, by the bright Ray
Of Reaſon's Light; we now can walk and ſee;
Our practis'd Rules do with our Senſe agree;
Safely we now on the Foundation tread,
And you through all the knotty Lab'rinth lead.
You open to the World ſo clear a Way,
They hardly, if they would, could go aſtray.
But pardon me, I leſſen by my Praiſe
Your Worth approv'd which I attempt to raiſe;
And theſe few Lines do only tell the Town
What was to every Man before well known;
Accept then what as Praiſe I would intend,
And if I injure you while I commend,
Oh! take it as the Fondneſs of your Friend.

C. J.

The Bookſellers to the READER.

SInce every one is not a competent Judge of the Intrinſick Worth of Books, ſo as to diſtinguiſh between thoſe of the ſame Subject whether well or ill done, and ſince all thoſe that apply themſelves to the Study of Arithmetick, or any other Art or Myſtery, would certainly make choice of ſuch Tracts for their Inſtruction as are moſt likely to accompliſh them in a ſhort time: But moſt being not capable of chuſing for themſelves, as unacquainted with the true Character of Books on that Subject, we thought it might not be improper to let 'em know the Excellency of the following Treatiſe, not only from the Acceptation it hath found in the World (about 8000 having been printed in ſix former Editions) but alſo from the following Account given of it by the Authors of the *Works of the* LEARNED for the Month of *February*, 1695.

It's needleſs for us to inſiſt on the Uſefulneſs of the Work, or ſpend many Words to give you an Idea of it, the Ingenious Author having already performed that in his Title Page: Only this we ſhall venture to ſay, that though it be with many Books, as it is with Perſons who have a plump Countenance and a conſumptive Body, the diligent Peruſer will not find this Book to be ſuch; but on the contrary, that the Author doth faithfully perform what his Title promiſes, and that in the moſt rational, plain, and compendious Manner, of any that we have hitherto ſeen upon the Subject: Nor can we forbear giving this Judgment of the Work, That it deſerves Encouragement from the Publick, as being calculated for the Improvement of Trade and Commerce, to which our Engliſh *Nation is ſo much indebted for their Fame and Grandour, and that great Figure which they make in the World. And ſeeing the general Current of Education amongſt the middling Sort of People, and not a few of the Gentry does in our Days run towards Trade and Merchandize; we cannot but conceive that this Book, if once known, will meet with a general Acceptation by all Men of Buſineſs; who tho' they may, perhaps, think they don't ſtand much in need of it themſelves, yet muſt certainly be convinced of its Uſefulneſs, on many Occaſions, to Men of the greateſt Experience; and that it is abſolutely needful for their Children and Servants, if they deſign to employ them in Trade or Commerce, or have occaſion to Travel. And how*

much

The Bookſellers to the *READER.*

much Labour it may ſave to School-maſters, and Toil and Vexation to Scholars, thoſe who are converſant in ſuch Affairs, will be better able to judge than we are to expreſs.

Since which firſt Impreſſion, 14 or 15 Sheets having been added in the Second, beſides ſome meterial Additions and Alterations in the Third, and Improvements in theſe others, we doubt not but upon peruſal every unbyaſſed Reader will find the Character to be no more than the genuine Merits of this Book.

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Numeration

teacheth to read or write any Number set downe or named

The Table

					1	Vnites	1		
				2	1	Tenns	1	2	
			3	2	1	Hundreds	1	2	3
		4	3	2	1	Thousands	1	2	3 4
	5	4	3	2	1	XThousands	1	2	3 4 5
6	5	4	3	2	1	CThousands	1	2	3 4 5 6
7	6	5	4	3	2	1 Millions	1	2	3 4 5 6 7
8	7	6	5	4	3	2 1 XMillions	1	2	3 4 5 6 7 8
9	8	7	6	5	4	3 2 1 CMillions	1	2	3 4 5 6 7 8 9

CHAP. I.

Notation and Numeration of Whole Numbers.

IN Order to the right Underſtanding how any Number is to be read or written, there are theſe four Things to be conſidered:

1. The Characters by which all Numbers are expreſſed.
2. The Species or Kinds of Number.
3. The Order or Place: And,
4. The Multitude or Value ſignified by any Number.

Firſt, The Characters by which all Numbers (how great ſoever) are expreſſed in Writing, are theſe Ten, *Viz.*

1, 2, 3, 4, 5, 6, 7, 8, 9, and (0) Cypher.

Secondly, The Species or Kinds of Numbers are Three: *Viz.*

Firſt, Digits.
Second, Articles.
Third, Mixt Numbers.

1. A Digit is any of the Nine fore-mentioned Figures ſingly expreſſed: *Viz.* 1, 2, 3, 4, 5, 6, 7, 8, 9; which poſſeſs but One Degree or Place.
2. An Article is any One or more of the Nine Digits, with a Cypher or Cyphers, placed to the Right-hand: As, 10, 100, 300, 5000, 6000, 6540, *&c.*
3. A Mixt Number is compoſed of Digits, or Cyphers and Digits promiſcuouſly placed together: As, 12, 24, 96, 102, 112, 1769, *&c.*

Thirdly, The Order of the Places of Numbers is reckoned from the Right-hand, toward the Left; as in the Table following: Toward the Left-hand, 1 is in the Firſt Place, 2 in the Second, 3 in the

the Third, *&c.* But the Order of Reading Numbers is from the Left-hand, toward the Right, as ſhall be ſhewed by and by.

The Denomination of the Places are reckoned as followeth, and as in the foregoing Table.

The Denomination of the Places.

The Order of Places.		
1	9	*Units.* 123456789
2	8	*Tens.*
3	7	*Hundreds.*
4	6	*Thouſands.*
5	5	X *Thouſands.*
6	4	C *Thouſands.*
7	3	*Millions.*
8	2	X *Millions.*
9	1	C *Millions.*
10	2	*Thouſands of Millions.*
11	3	X *of Thouſands of Millions.*
12	4	C *Thouſands of Millions.*
13	5	*Millions of Millions, (or Billions.)*
14	6	X *Millions of Millions, (or* X *of Billions.)*
15	7	C *Millions of Millions, (or* C *of Billions)*
16	8	*Thouſ. of Mill of Millions, (or M. of Billions.)*
17	9	X *Thouſ. of Mill. of Millions, (or of Billions.)*
18	8	C *Thouſ. of Mill. of Millions, (or of Billions.)*
19	7	*Mill. of Mill. of Millions, (or Trillions.)*
20	6	X *Mill. of Mill. of Millions, (or* X *of Trillions.)*
21	5	C *Mill. of Mill. of Millions, (or* C *of Trillions.)*
22	4	*Thouſ. of Mill. of Mill. of Millions, (or Thouſ. of Trillions)* &c.

Fourthly, Having premiſed this, it will be eaſie to read any Number, obſerving only theſe two Things: *Viz.*

1. The Place any Digit poſſeſſeth.
2. The Value of that Digit.

Firſt, By the preceding Table it is plain, That the firſt Place toward

ward the Right-hand, is the Place of Units; the Second, the Place of Tens; the Third, the Place of Hundreds, *&c.*

Second, Therefore ſuppoſe the Digit 9, ſtands in the Units Place, the Value of it is 9; that is, 9 Units: If it ſtands in the Second Place, 'tis 9 Tens, that is Ninety; if in the Third, or Hundreds Place, 'tis 9 Hundred, *&c.* So we will ſuppoſe that the Digit 7 ſtands in the Fifteenth Place, which (by the foregoing Table) is Hundreds of Millions of Millions, (or Hundreds of Billions;) and the Value of that Digit, poſſeſſing that Place, being (7:) Admitting therefore that all the Places toward the Right-hand of the ſaid (7) were ſupplied by Cyphers, the Value of the Number would be Seven Hundred Millions of Millions: And, in like manner, the 22 Figures in the foregoing Table may be thus read:

Four Thouſand Five Hundred Sixty-ſeven Trillions,
Eight hundred ninety-eight thouſand 7 hundred ſixty-five Billions,
Four hundred thirty-two thouſand one Hundred and 23 Millions,
Four Hundred fifty-ſix Thouſand ſeven Hundred eighty-nine.

And by the ſame Rules are all other Numbers expreſſed; Where, *Note*, That any Place is Ten times the Value of the Place next it, toward the Right-hand; As 1111111111, is 1000000000, 100000000, 10000000, 1000000, 100000, 10000, 1000, 100, 10, 1; That is, One Thouſand Millions, is Ten times One Hundred Millions, which is Ten times Ten Millions, which is Ten times One Million, which is Ten times One Hundred Thouſand, which is Ten times Ten Thouſand, which is Ten times One Thouſand, which is Ten times One Hundred, which is Ten times Ten, which is Ten times One; and the whole Number being read, is One Thouſand One Hundred and Eleven Millions, One Hundred and Eleven Thouſand, One Hundred and Eleven.

1 1 1 1 2 3 4 4 4 5 6 7 8 9.

The Value of the Latin, or Literal Numbers, *are as follows.*

I	1	XX	20	CCCC	400
II	2	XXX	30	D	500
III	3	XL	40	DC	600
IIII or IV	4	L	50	DCC	700
V	5	LX	60	DCCC	800
VI	6	LXX	70	DCCCC or CM	900
VII	7	LXXX	80	M	1000
VIII	8	XC	90	MDCCXVIII	1718,
IX	9	C	100	Or sometimes CIↃ is	
X	10	CC	200	put for 1000; so	
XI	11	CCC	300	CIↃ CIↃ CCIↃ is 2900.	

CHAP.

Addition Teacheth to add several sums together to make them one Total

Pence:	Yards:	Pales:	Quarts:
1270	2734	3546	2795
1021	3046	5737	1501
2370	6542	7845	7100
8426	5703	6721	5072
5603	0708	0654	8540
7206	1246	4060	3026
4570	2000	7241	1867
3872	3427	5426	0742
2106	7602	3213	6381
7285	0841	0762	7600
1707	1056	2187	3786
2834	5407	8615	4502

Total 41000

Proof

CHAP. II.

Addition of Whole Numbers.

ADdition is either Simple or Compound.

First, Simple Addition is when Numbers are to be added that have but one Name or Denomination, as Pounds to Pounds, Feet to Feet, *&c.*

Secondly, Compound Addition is when Numbers of diverſe Denominations are added together; as, Pounds, Ounces, and Drams, to Pounds, Ounces, *&c.* in both which Caſes, theſe two Rules are to be conſidered.

The *First* is for the right placing the Numbers to be added.
The *Second* is for the adding together thoſe Numbers after they are ſo placed.

1. *The Rule for placing the Numbers that are to be added.*

Obſerve to write the Units Place of all your lower Numbers, under the like Place of the Number above; Tens Place under Tens, Hundreds under Hundreds, *&c.* (as in the Example foregoing, and thoſe that follow:) And if the Numbers to be added are of diverſe Denominations, you are to place all the lower Numbers under thoſe of the ſame Denomination above; as if you add 17 *s.* to 2 *l.* 7 *s.* you muſt place the Numbers thus:

l.	*s.*
2	: 07
0	: 17

2. *The Rule for adding Numbers of one Name together, (let the Denomination be what it will,) is:*

Summ up every Series or lineal Row of Figures, beginning at the undermoſt Figure towards the Right-hand, and place the Digit above Ten or Tens in that firſt Rank under the Line as followeth, and carry the ſaid Ten or Tens to the next Rank toward the Left-hand, calling

ling them ſo many Units, (for they are no more of that next Rank) and add all the reſt of the Ranks as you have done the Firſt: But if there is nothing above even Tens, when you have added any Rank together, then place a Cypher under that Rank, proceeding to carry the Tens, as is before directed: As in the following Example.

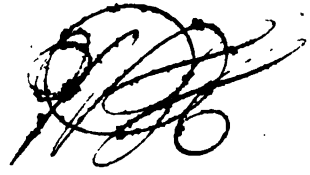
Admit I have owing to me for

	l.
Holland Cloth	3794
Thread	896
Cambrick	6285
Latten-Wyre	3745
Sugar	2392
Nutmegs	3058
Total	20170

To know what Summ I am Creditor by, or what is owing me in all, I ſumm up the Particulars, beginning with 8 at the Angle, towards the Right-hand of the lowermoſt Line, as was before directed; ſaying, 8 and 2 is 10, and 5 is 15, and 5 is 20, and 6 is 26, and 4 is 30: put a Cypher under the Line, and carry 3 to the next Rank, toward the Left-hand; ſaying, 3 and 5 is 8, and 9 is 17, and 4 is 21, and 8 is 29, and 9 is 38, and 9 is 47; put the 7 under the Line, and carry 4 to the next Rank; ſaying, 4 and 3 is 7, and 7 is 14, and 2 is 16, and 8 is 24, and 7 is 31: put the 1 under the Line, and carry the 3 to the next Rank; ſaying, 3 and 3 is 6, and 2 is 8, and 3 is 11, and 6 is 17, and 3 is 20: which put all down, becauſe you have no more Ranks; ſo will you find the Total to be 20170 *l.* And after the like manner are any other Numbers of one Denomination, or Abſtract Numbers, added.

§. 2. *For adding Numbers of divers Denominations together, obſerve this Rule:*

Having the Numbers placed, as is before directed, and as in the Example following; conſider how many Units, of the leaſt Denomination in the Numbers given to be added, make a Unit of the next ſuperior Denomination, and how many Units ſoever you find of the next greater Denomination contained in the whole Rank, or Series, of the next leſſer Denomination, ſo many muſt you carry to the ſaid Rank of greater Denomination: And if any thing remains over



Addition of Money

d	s
12	1
24	2
36	3
48	4
60	5
72	6
84	7
96	8
108	9
120	10
132	11
144	12

li	s	d
270	16	08 ½
954	15	10
106	01	11 ¼
378	10	09
452	19	00 ¾
670	12	07
201	00	06 ½
815	01	05
720	17	04 ¼
147	18	03
706	14	02 ¾
908	03	10

li	s	d
397	17	10 ¼
254	10	07
632	15	11
107	16	02 ½
540	17	06
325	19	08
697	03	00
402	00	05 ¾
354	04	03
976	14	09
214	11	01 ½
107	13	04

Totals

Pounds

over and above a Unit or Units of the next higher Denomination, ſuch Overplus is to be placed under the Line.

To inſtance in the foregoing Example of Pounds, Shillings and Pence, toward the Left-hand: Where note, by the way, That

¼ is one Farthing, or a Quarter of any Thing.

½ is one Half-penny, or two Quarters of any Thing.

¾ is three Farthings, or three Quarters of any Thing.

So in the Example aforeſaid, 3 Farthings and 1 is 4, and 2 is 6, and 3 is 9, and 1 is 10, and 2 is 12 farthings or 3 Pence: which carry to the pence; ſaying, 3 pence and 10 pence is 13 pence, and 2 is 15, and 3 is 18, and 4 is 22, and 5 is 27, and 6 is 33, and 7 is 40, and 9 is 49, and 11 is 60, and 10 is 70, and 8 is 78 pence; that is, 6*s.* 6*d.* (as you may ſee by the Table of pence on Page 1 of this Chapter:) Put the 6*d.* under the Line, and carry the 6*s.* to the Shillings, ſaying, 6 and 3 is 9, and 4 (taking but Units place of the ſhillings) is 13, and 8 is 21, and 7 is 28, and 1 is 29, and 2 is 31, and 9 is 40, and 1 is 41, and 5 is 46, and 6 is 52: put the 2 ſhillings under the Line, and carry the 5 to the Tens place of ſhillings; ſaying, 5 and 8 (Ten ſhillings) is 13: put the odd Ten ſhillings under the Line, and carry 12 Ten ſhillings to the Pounds, calling them 6 pounds (by taking half of them,) ſaying, 6 and 8 is 14, and ſo forward as in the laſt Example of one Denomination; ſo you will find the Summ to be 6333*l.* 12*s.* 6*d.* By the ſame Rule and Method you may find the Total of any other Number of Pounds, Shillings, and Pence: But,

Note, That becauſe in Quarters of Hundreds, Ounces, *&c.* the Difficulty of proceeding in that Method would be great; therefore your beſt way will be when you add Ounces in Averdupoize-weight, *&c.* to make a Point or Prick at every 16; ſo will you avoid charging the Memory, and may with eaſe carry the ſaid points or pricks to the pounds; each point being 1 pound: A few Examples will make it plain, which you have after the Tbles following, whereof there are 2 of each kind.

I. *The Table of* Engliſh *Coin for Addition and Subſtraction.*

4 Farthings is	1 Penny	6 Shill. 8 pence	1 Noble
4 Pence	1 Groat	10 Shillings	1 Angel
6 Pence	1 Teſter	13 Shill. 4 pence	1 Mark
12 Pence	1 Shilling	20 Shillings	1 Pound
5 Shillings	1 Crown		

II. *The Table of* Engliſh *Coin for Reduction.*

In—1 Pound	In—1 Mark	In—1 Angel
are 1 Mark and ½	are 1 Angel & ⅓	are 1 Noble & ⅓
2 Angels	2 Nobles	2 Crowns
3 Nobles	2 Crowns & ⅔	10 Shillings
4 Crowns	13 Shill. & ⅓	20 Teſters
20 Shillings	26 Teſters & ⅔	30 Groats
40 Teſters	40 Groats	120 Pence
60 Groats	160 Pence	480 Farthings
240 Pence	640 Farthings	
960 Farthings		

In—1 Noble	In—1 Crown	In—1 Shilling
are 1 Crown & ⅓	are 5 Shillings	are 2 Teſters
6 Shillings ⅔	10 Teſters	3 Groats
13 Teſters & ⅓	15 Groats	12 Pence
20 Groats	60 Pence	48 Farthings
80 Pence	240 Farthings	
320 Farthings		

In—1 Teſter	In—1 Groat	And in-1 Penny
are 1 Groat & ¼	are 4 Pence	are 4 Farthings
6 Pence	16 Farthings	
24 Farthings		

II. *The*

II. *The Table of Troy weight to be uſed in Addition and Subſtraction.*

32 Natural grains of Wheat is		24 Artificial grains marked	*grs.*
24 Artificial grains is	1	Penny-weight marked	*dw.*
20 Penny-weight is	1	Ounce marked	℥
12 Ounces is	1	Pound marked	lb

II. *The Table to be uſed in Reduction.*

In 1 Pound	In 1 Ounce	In 1 Penny-wt.
are 12 Ounces	are 20 Penny-wt.	are 24 Grains
240 Penny-wt.	480 Grains	
5760 Grains artif.		
7680 Natural grs.		

III. *The Table of Averdupois-weight uſed in Addition and Subſtraction.*

4 Quarters of a Dram is	1 Dram = *dr.*	28 Pound	1 Quarter of a Hundred = *qr.*
16 Drams	1 Ounce = *ou.*	4 Quarters	1 Hundr = *C.*
16 Ounces	1 Pound = *lb.*	20 C (or 19½ lead)	1 Tun = *T.*

III. *The Table to be uſed in Reduction.*

In 1 Tun	In 1 Hundred	In 1 Pound
are 20 Hundred	are 112 Pounds	are 16 Ounces
2240 Pounds	1792 Ounces	256 Drams, &
35840 Ounces	28672 Drams	In — 1 Ounce
573440 Drams		16 Drams

IV. *The Table of Apothecaries Weight to be uſed in Addition and Subſtraction.*

20 Grains	1	Scruple mark'd	℈
3 Scruples	1	Dram	ʒ
8 Drams	1	Ounce	℥
12 Ounces	1	Pound	℔

IV. *The Table to be uſed in Reduction.*

In—1 Pound	In—1 Ounce	In—1 Dram
are 12 Ounces	are 8 Drams	are 3 Scruples
96 Drams	24 Scruples	60 Grains, and
288 Scruples	480 Grains	In 1 Scruple 20
5760 Grains		Grains

V. *The Table of Sheep's-Wool Weight to be uſed in Addition and Subſtraction.*

7 Pounds	1	Clove
2 Cloves	1	Stone
2 Stone	1	Tod
6½ Tod	1	Wey
2 Weys	1	Sack
12 Sacks	1	Laſt

V. *The Table to be uſed in Reduction.*

In—1 Laſt	In—1 Sack	In—1 Wey
are 12 Sacks	are 2 Weys	are 6½ Tod
24 Weys	13 Tod	13 Stone
156 Tod	26 Stone	26 Cloves
312 Stone	52 Cloves	182 Pounds
624 Cloves	364 Pounds	
4368 Pounds		

In

In 1 Tod	In—1 Stone	In—1 Clove
are 2 Stone	are 2 Cloves	are 7 Pounds
4 Cloves	14 Pounds	
28 Pounds		

VI. *The Table of Wine-Measure to be used in Addition and Subtraction.*

4 Quarts, or 231 solid Inches, is —— 1 Gallon
42 Gallons —— 1 Tierce
1½ Tierce, or 63 Gallons, is —— 1 Hogs-head
2 Hogs heads —— 1 Pipe or Butt
2 Pipes —— 1 Ton

VI *The Table to be used in Reduction.*

In--1 Ton	In--1 Pipe	In--1 Hogs-head
are 2 Pip. or Butts	are 2 Hogs-heads	are 1½ Tierce
4 Hogs-heads	3 Tierce	63 Gallons
6 Tertians	126 Gallons	252 Quarts
252 Gallons	504 Quarts	504 Pints
1008 Quarts	1008 Pints	

In—1 Tierce	In — 1 Gallon
are 42 Gallons	are 4 Quarts
168 Quarts	231 Solid Inches

VII. *The Table of Beer-Measure to be used in Addition and Subtraction.*

2 Pints —— 1 Quart
2 Quarts —— 1 Pottle
2 Pottles, or 282 solid Inches, is —— 1 Gallon
9 Gallons —— 1 Firkin
2 Firkins —— 1 Kilderkin
2 Kilderkins —— 1 Barrel

VII. *The Table to be used in Reduction.*

In--1 Barrel	In--1 Kilderkin	In--1 Firkin
are 2 Kilderkins	are 2 Firkins	are 9 Gallons
4 Firkins	18 Gallons	18 Pottles
36 Gallons	36 Pottles	36 Quarts
72 Pottles	72 Quarts	72 Pints
144 Quarts	144 Pints	
288 Pints		

In--1 Gallon	In--1 Pottle	In--1 Quart
are 2 Pottles	are 2 Quarts	are 2 Pints
4 Quarts	4 Pints	70$\frac{1}{2}$ Solid Inch.
8 Pints	141 Solid Inch.	35$\frac{1}{4}$ Inches in
282 Solid Inch.		1 Pint

VIII. *The Table of Ale-Measure to be used in Addition and Subſtraction.*

2 Pints ——— 1 Quart
2 Quarts ——— 1 Pottle
2 Pottles, or 282 ſolid Inches, is — 1 Gallon
8 Gallons ——— 1 Firkin of Ale, Herring or Soap
2 Firkins ——— 1 Kilderkin
2 Kilderkins ——— 1 Barrel

VIII. *The Table to be used in Reduction.*

In--1 Barrel	In--1 Kilderkin	In--1 Firkin
are 2 Kilderkins	are 2 Firkins	are 8 Gallons
4 Firkins	16 Gallons	16 Pottles
32 Gallons	32 Pottles	32 Quarts
64 Pottles	64 Quarts	64 Pints
128 Quarts	128 Pints	
256 Pints		

In

In--1 Gallon	In--1 Pottle	In--1 Quart
are 2 Pottles	are 2 Quarts	are 2 Pints
4 Quarts	4 Pints	70½ Inches
8 Pints	141 Solid Inches	In 1 Pint 35¼ Inc.
282 Solid Inches		

IX *The Table of Dry-Meaſure to be uſed in Addition and Subſtraction.*

2 Pints	1 Quart
2 Quarts	1 Pottle
2 Pottles	1 Gallon
2 Gallons	1 Peck
4 Pecks	1 Buſhel Corn-Meaſure
5 Pecks	1 Buſhel Water-Meaſure
8 Buſhels	1 Quarter
4 Quarters	1 Chaldron
5 Quarters	1 Wey
2 Weys	1 Laſt

IX. *The Table to be uſed in Reduction.*

In--1 Laſt	In--1 Wey	In--1 Quarter	In--1 Buſhel
are 2 Weys	are 5 Quarters	are 8 Buſhels	are 4 Pecks
10 Quarters	40 Buſhels	32 Pecks	8 Gallons
80 Buſhels	160 Pecks	64 Gallons	16 Pottles
320 Pecks	320 Gallons	128 Pottles	32 Quarts
640 Gallons	640 Pottles	256 Quarts	64 Pints
1280 Pottles	1280 Quarts	512 Pints	
2560 Quarts	2560 Pints		
5120 Pints			

In--1 Peck	In--1 Gallon	In--1 Pottle	In--1 Quart
are 2 Gallons	are 2 Pottles	are 2 Quarts	are 2 Pints
4 Pottles	4 Quarts	4 Pints	In--1 Pint a-
8 Quarts	8 Pints		bout 33⅓ Inch.
16 Pints			Solid.

X. *The Table of Long-Meaſure to be uſed in Addition and Subſtraction.*

3	Barley-Corns	1	Inch
12	Inches	1	Foot
3	Foot or 16 Nails	1	Yard
45	Inches	1	Ell Engliſh
27	Inches	1	Ell Flemiſh
2	Yards	1	Fathom
5	Yards and ½	1	Pole or Perch
40	Perches	1	Furlong
8	Furlongs	1	Engliſh Mile

X. *The Table to be uſed in Reduction.*

In—1 Mile	In—1 Furlong	In—1 Pole or Perch
are 8 Furlongs	are 40 Poles	are 5½ Yards
320 Pole or Per.	220 Yards	16½ Foot
1760 Yards	660 Feet	198 Inches
5280 Foot	7920 Inches	594 Barley-Corns
63360 Inches	23760 Barley-Corns	Length
190080 Barley-Corns		

In—1 Yard	In—1 Foot	In—1 Inch
are 3 Foot	are 12 Inches	are 3 Barley-Corns
36 Inches	36 Barley-Corns	Length
108 Barley-Corns		

XI. *The*

XI. *The Table of Square or Superficial Measure to be used in Addition and Subtraction.*

16	Quarters of an Inch	1 Inch
144	Inches	1 Foot
9	Foot	1 Yard
30 ¼	Yards	1 Pole
40	Poles long, and 1 broad	1 Rod of Land or Qr. of an [Acre
4	Square Rods	1 Acre
640	Acres	1 Square Mile

XI. *The Table to be used in Reduction*

In — 1 Squ. Mile	In — 1 Square Acre	In — 1 Square Rod
are 640 Squ. Acres	are 4 Square Rods	are 40 Perches
2560 Rods	160 Square Perch.	1210 Yards
102400 Poles or Perch.		10890 Foot
3097600 Yar.	4840 Yards	1568160 Inches
27878400 Foot	43560 Foot	
4014489600 Squ. Inches	6272640 Inches	

In — 1 Sq. Perch	In — 1 Sq. Yard	In — 1 Sq. [illegible]
are 30¼ Yards	are 9 Sq. Foot	are 144 Inches
272¼ Foot	1296 Inches	
39204 Inches		

XII. *The Table of Dozen to be used in Addition and Subtraction.*

12	Pieces, or Things, is	1 Dozen
12	Dozen	1 Small Gross
12	Small Gross	1 Great Gross

XII. *The*

XII. *The Table to be uſed in Reduction.*

In--1 Great Groſs	In--1 Small Groſs	In--1 Dozen
are 12 Small Groſs	are 12 Dozen	are 12 Pieces, or Things
144 Dozen	144 Pieces, or Things	
1728 Pieces, or Things		

XIII. *The Table of Time to be uſed in Addition and Subſtraction.*

60″	Seconds	1 Minute
60′	Minutes	1 Hour
24	Hours	1 Natural Day
7	Days	1 Week
4	Weeks	1 Month
13 Months, 1 Day, and 6 Hours		1 Solar Tropical Year

XIII. *The Table to be uſed in Reduction.*

In — 1 Year	In---1 Week	In--1 Day	In--1 Hour
are 52 Weeks	are 7 Days	are 24 Hours	are
365 Days	168 Hours	1440 Minu.	60 Min.
and 6 Hours	10080 Minu.	86400 Secon.	3600 Seconds
8766 Hours	604800 Sec.		
525960 Minutes			
31557600 Seconds			

But, *Note*, That from the time the Sun leaveth 1 Tropick to the time it returns to that Tropick, is computed 365 Days, 5 Hours, 49 Minutes, 4 Seconds, and 21 Thirds.

And that by the laſt Table above for Reduction,

It will be found ſince the Creation which is 5667 Years, } 2980615320 Minutes.

And ſince the Incarnation at *Lady-Day*, 1718. } 903599280 Minutes

Each performed at 1 Operation by the ſaid Table, as you will perceive (when you arrive at the Rule of Reduction) with many other excellent Uſes of theſe Tables.

XIV. *The*

XIV. *The Table of Motion.*

60″ (Seconds) maketh	—— 1	Minute.
60′ (Minutes) or Miles, or 4′ of Time	—— 1	Degree.
30° Degrees	—— 1	Sign of the Zodiack.
3 Signs or 90°	—— 1	Quadrant.
4 Quadrants or 360°	—— 1	Circle of the Sphere.

§. 4. *The Uſe of the Foregoing Tables.*

YOU have for each of the foregoing Denominations of Money, Weight, Meaſure, *&c.* 2 Sorts of Tables: The uppermoſt ſhewing how many Units of an inferiour Denomination are contained in an Unit of the next ſuperiour Denomination, by which you may know how to add or ſubſtract any Numbers of thoſe Denominations. The other Tables under the former, ſhew how many Units of any of the lower Denominations are contained in an Unit of a higher Denomination, which is very uſeful for the ſpeedy reducing of any Thing from one Denomination to another.

The firſt Table is of *Engliſh* Coin, the leaſt Denomination of which is a Farthing, and the greateſt of our real Pieces of Silver, a Crown or 5 *s.* 4 whereof make 1 Pound or 20 *s.* concerning which Money you have a farther Account in Exchange of Coin.

The ſecond Table is of Troy-Weight, by which is weighed Bread, Corn, Jewels, Gold, Silver, Amber, and Electuaries; and all Meaſures for Wet and Dry are taken from this Weight. By the Statutes of 51 *H.* 3. *Sect.* 7. and 31 *Edw.* 1. 12 *H.* 7. *Ch.* 5. it was Enacted, That one Penny ſhould contain in Weight 32 Natural Grains of Wheat taken out of the middle of the Ear, or 24 Artificial Grains, as in the Table of Troy-Weight. *Vide Raſtal. Weights*, 7, 8.

The third Table is of Averdupoize-Weight, 16 Ounces, or 1 Pound of which is equal to 14 *oun.* 12 *dw.* Troy. By this Weight is weighed all manner of Things that have waſte, as Phyſical and Grocery Drugs, Rozen, Wax, Pitch, Tarr, Tallow, Butter, Cheeſe, Soap, Hemp, Flax, Fleſh, Iron, Steel, Tinn, Copper, Lead, Alum, Copperas, *&c.* 112 *l.* of which is the Hundred; and in adding, for every 16 Drams carry one to the Ounces, for every

16 Ounces carry 1 to the Pounds, for every 28 in the Pounds place, carry 1 to the Qr. of Hundreds, for every 4 in the Qr. of Hundreds, carry 1 to the Hundreds. *Note*, That 56 *oun. Averd.* is 51 *oun.* Troy very near.

The fourth Table is of Apothecaries Weights, by which they compound their Medicines, tho' they buy and ſell their Drugs by the Averdupoize-Weight. In adding this Weight, for every 20 in the Grains place, carry 1 to the Scruples, for every 3 Scruples, carry 1 to the Drams, for every 8 of theſe Drams, carry 1 to the Ounces, for every 12 Ounces, carry 1 to the Pounds place.

The fifth Table is the Weight by which Sheeps-wooll is weighed: In adding of which Weight, you are for every 7 Pounds to carry 1 to the Cloves place, for every 2 Cloves to carry 1 Stone, for every 13 Stone to carry 1 to the Weys place, *&c.*

The ſixth Table is of Wine-Meaſure, where, in adding, you muſt for every 4 Quarts, carry 1 to the Gallons, for every 63 Gallons, carry 1 to the Hogs-heads place, for every 2 Hogs-heads, carry 1 to the Pipes place, and for every 2 Pipes, carry 1 to the Tuns. *Note*, That the Wine Gallon contains but 231 ſolid Inches by the Standard of the *Exchequer*, which is leſs than the Ale or Beer Gallon. By which Gallon of 231 Inches, all other Liquids, except Ale and Beer are meaſured by the 12 *Ch.* 2. And note, That a Pint of Wine weighing $\frac{244}{1000}$ of a *lb* Averdupoize; the Tun (or 252 Gallons) will weigh 17 *C.* weight.

The ſeventh Table is of Beer-Meaſure, containing 282 ſolid Inches to the Gallon, by which ſtrong, mild, and ſmall Beers are meaſured; the Denominations uſually added by Exciſe-Officers, *&c.* are for every 9 Gallons, carry 1 to the Firkins, for every 4 Firkins, carry 1 to the Barrels, 36 Gallons being 1 Barrel by the 12 of *Ch.* 2.

The Eighth Table is of Ale-Meaſure, containing as the Beer 282 ſolid Inches, but the Barrel is leſs than the Beer Barrel, by 1128 ſolid Inches, or 4 Gallons: So that for every 8 Gallons, carry 1 to the Firkins, and for every 4 Firkins, carry 1 to the Barrels, 32 Gallons being 1 Barrel by 12 *Ch.* 2. Vid. 11. 12 *W.* 3.

The ninth Table is of Dry-Meaſure, for Corn, Salt, Sea-Coal, *&c.* And in adding, you are for every 2 Gallons or $\frac{1}{4}$ Peck to carry one to the Pecks, for every 4 Pecks carry one to the Buſhels, and for every 8 Buſhels carry one to the Quarters, which is the higheſt Denomination of Corn-Meaſure. *Vid. Stat.* 1. *Q. A.* (*Seſ.* 2.) &c. where Malted Corn, *&c.* is to be meaſured by a Buſhel 18 Inches and

and a half Diameter, and 8 Inches deep; ſo that every Inch deep upon this Gauge-point is a Gallon (or 268.8 Inches) and the ſaid Dimenſions by the ſaid Acts are to be thoſe of a *Winchester* Buſhel, which by conſequence contains 2150.425 Inches ſolid.

The tenth Table is of Long-Meaſure, in which no Notice is taken of Breadth, as of Heights, Depths, Diſtances, Length of Cloth, Roads, *&c.* and in adding this kind of Meaſure, you are for every 3 Foot or 4 Quarters of a Yard to carry 1 to the Yards, for every 11 half Yards carry 1 to the Perches, for every 40 Perches carry 1 to the Furlongs, and for every 8 Furlongs carry 1 to the Miles. But note, That tho' 5½ Yards is a Pole or Perch, according to Statute, yet in ſome Countries they have 7, 7½ and 8 Yards to the Pole, called cuſtomary Meaſure. Tho' 160 Square Perches, each 5½ Yards, is an Acre by the 24 *H.* 8. *Ch.* 8.

The eleventh Table is of Superficial Meaſure, which is that wherein Length and Breadth is conſider'd, as in meaſuring Board, Glaſs, Pavements, Wainſcot, Tiling, Plaiſtering, Flooring, *&c.* where for every 144 Inches, you muſt carry 1 Foot, for every 9 Foot 1 Yard; or in Land, for every 40 Square Perches carry 1 to the Rods, for every 4 Rods carry 1 to the Acres. And note, That the ſolid Foot is 12 Inches Long, 12 Broad, and 12 Thick, or 1728 ſolid Inches, uſed in meaſuring Timber, Stone, *&c.*

The twelfth Table is of Dozen, uſeful in adding Things computed thereby, which are very numerous, of which, ſuch wherein the great Groſs is uſed, you have following. In adding hereof, you muſt for every 12 carry 1 to the Dozens place, for every 12 Dozen 1 to the ſmall Groſs, for every 12 ſmall Groſs 1 to the great Groſs.

The thirteenth Table is of Time; of which ſome ſay, How can 365 Days and 6 Hours be found in a Year, ſince to multiply 52 Weeks by 7 Days, produceth but 364 Days? But if ſuch Queriſt looks into his Almanack (wherein no doubt but he believes all contain'd) he will find 52 Weeks and 1 Day in a Year, and every fourth Year 52 Weeks, 2 Days, or 52 Weeks, 1 Day and 6 Hours every Year one with another, according to the *Engliſh* Account of computing Time.

The fourteenth is a Table of Motion, whereby the Motion of the Heavenly Bodies, as the Sun, Moon, *&c.* (or of the Earth, according to *Copernicus* his Syſtem of the World) is computed, of which I need ſay nothing more, it being more uſed by the Aſtronomer than Merchant; but that Mr. *Norwood*'s meaſured Degree is 69½ Miles.

§. 5. *Tables of Quantity in Whole-Sale Trade.*

Note, That Things in a Whole-ſale-way Bought and Sold by the 1000, are

Tacks.
Chair-Nails and Tenter-Hooks.
Brick-Stones.
Flanders, Paving and Pan-Tyles.
Cuttlebones.
Pack and Sail-Needles.
Oranges and Lemons.
Pomegranates.
Gooſe-Quills.
Copper-Spangles.
Teazles.
Thimbles.
Trunnels.
Billets.
Ox-bones.
Leaves of Horn for Lanterns.
Ox-horns.
Hoops for Barrels.
Roe-Buck, and Stags Tips.
Pieces of Box-wood for Combs.
Lamperns.
Yards of Cloth Liſt.
Squirril Skins.
Slate and Hilling Stones.

Pins and Small Needles by the 1000 Dozen.

120 in Number is the Hundred of

Balks of all ſorts.
Barlings.
Barrel-boards.
Pipe-boards.
Bomſpars.
Bow-ſtaves.
Cant-ſpars.
Capravens.
Herring.
Deal Boards.
Nails.
Eggs.
Cod-fiſh.
Cole-fiſh.
Ling-fiſh.
Newland-fiſh.
Stock-fiſh all ſorts.
Heading for Pikes.
Ells of Canvas, except Strip'd, Tufted or Quilted.
Coney, Stag, and Lamb Skins.
Oars.
Hogs-heads Staves.
Ells of Drilling, Pack-Duck, *Hamborough*, *Silecia*, *Iriſh*, *Muſcovia*, *Weſtphalia*, *Hanover*, &c. Linen Cloth.

Of Clap-Board, the Great Hundred is 24 Small, or 2880, and the Thouſand Herrings is 1200.

By

By the Great Groſs, containing 12 ſmall Groſs or 144 Dozen, are bought and ſold in a Whole-ſale way of Trade.

Metal,	Buttons.	Comb and Spectacle	Caſes.
Glaſs,		Lightwood and Box	Combs.
Thread,		Cheſs-men.	
Silk,		Thread and Silk	Points.
Handkerchief and Hair,		Tobacco Pipes.	
Cap-hooks.			
Playing Cards.			

Things of which five Score is reckoned a Hundred Weight.

Croſsbow-Thread.		Capers.	
Ginger.		China Roots.	
Horſe-Tails with Hair.		Braſs and Lattin	Manufactures.
Indigo.			
Thrums.			

Of Hay, the Stone is 14 *l.* 4 of which, or 56 *l.* is 1 Truſs by 2 *William* and *Mary*, *Chap.* 8. or of new Hay 60 *l.* to the Truſs in *July* and *Auguſt*, on forfeit of 18 Pence *per* Truſs; and the Load is 36 Truſs 56 *l.* old Hay.

Of Iron and Shot, 14 *l.* is one Stone, 2 Stone 1 Quarter of a Hundred, *&c.* as in Averdupoize Weight.

In *Eſſex* they weigh Cheeſe and Butter by the Clove of 8 Pounds, and 31 to the Wey. But in *Suffolk* they allow 42 Cloves or 336 Pounds to the Wey.

The Barrel of ſundry Commodities, is as follows:

Anchovies	30	Raiſins	1 *C.* Weight.
double Barrel	60 Pounds.	Oyl	31 ½ Gallons.
Nuts or Apples	3 Buſhels.	Spaniſh Tobacco	2 to 3 *C.*
Potaſh or Barillia	200 Pounds.	Gunpowder	100 *lb.* Weight.
Salmon or Eells	42 Gallons.	Soap	240 *l.*
White or black Plates	300 Plates.	Butter	224 *l.*
Candles	10 dozen Pound.	Herring	32 Gallons.
Figs	0 *C.* 3 *q.* 14 *l.* to 2 ½ *C.*		

Of

Of Timber, 43 ſolid Foot make 1 Tun, or 50 Foot Rough Timber 1 Load. By the Book of Rates, 12 *Car.* 2.

600 Foot of 1
400 Foot of 1½
300 Foot of 2
200 Foot of 3
150 Foot of 4
} Inch Plank, make 1 Load.

Where Sea-Coal and Salt are meaſured by the Corn-Meaſure, they are Heaped, or elſe there are 5 ſtriked Pecks to the Buſhel; 36 ſuch Buſhels in a Chaldron of Sea-Coal, and 21 Chaldron to the Score. The Buſhel for Apples (except in *London* and 3 Miles round) is to be heaped, and contains 18 Inches and a half Diameter within, and 8 Inches deep, by *Stat.* 1. *Q. An.*

The Abſtract of the Act Anno 7° Ann. Reg. *for Aſcertaining the Length and Breadth of Woollen-Cloth made in the County of* York, *is as follows:*

That after the 24th of *June*, 1709. all Broad Cloth made in the County of *York*, whether called an End or Half Cloth, or a Long or Whole Cloth, being well Scour'd and fully Mill'd, ſhall be five Quarters and a half by the Yard Wand in breadth within the Liſts in the Water, being fully wet. And ſuch Cloth called an End, ſhall not exceed 23 Yards in Length, being fully wet; and Long or Whole Cloth ſhall not exceed 46 Yards. And Cloth called Whole Thick Kerſeys, and Whole Thick Plains ſhall not be made under 17 Yards and a half in Length, and not leſs than 3 Quarters and a half in Breadth when fully wet. Any Perſon that makes or offers to Sale any Cloth not according to the ſaid Breadths and Lengths, being Convicted by Oath of any Overſeer or Searcher of Cloth, or of any credible Witneſs, before a Juſtice (not being a Trader in Woollen) for every Inch the ſaid Cloth ſhall be leſs than the reſpective Breadths; and for every Yard the Broad Cloths, called whole Cloths, exceed 46 Yards in Length; or an End 23 Yards; or for every half Yard the whole thick Kerſeys, or whole thick Plains, ſhall be leſs than 17 Yards and a half, ſhall forfeit 20 Shillings, and the Owner of every Fulling-Mill ſhall mark the Cloth with Lead, ſhewing its Length and Breadth as aforeſaid. *Vide* alſo the Statute, *Primo Annæ Reginæ.*

§. 6. *Ex-*

§. 6. *Examples of adding Numbers of divers Denominations.*

Example I.

Of Troy-Weight.

lib.	*ou.*	*dw.*	*gr.*
416	08	15	20
842	01	10	05
26	11	04	17
22	06	19	23
Totals--1308	04	10	17

Example II.

Averdupoize-Weight.

Ton.	*C.*	*Qr.*	*lib.*	*ou.*	*dr.*
147	16	3	14	15	15
119	03	1	04	01	00
7	19	3	27	10	08
1	10	2	19	13	12
276	10	3	01	09	03

Example III.

Of Wine-Measure.

Ton.	*Buts.*	*Hds.*	*Gal.*
31	01	01	38
10	01	00	10
5	00	01	60
7	01	01	09
Tot. 55	01	00	54

Example IV.

Beer-Measure.

Bar.	*Fir.*	*Gal.*
31	03	08
17	02	01
12	01	05
72	03	06
134	03	02

Example V.

Ale-Measure.

Bar.	*Fir.*	*Gal.*
71	03	07
18	01	01
28	00	02
13	02	06
132	00	00

Example VI.

Of Time.

Days.	*Hours.*	*Min.*	*Seconds.*
34	12	40	48
420	5	10	20
510	23	59	50
21	10	00	11
987	3	51	9

Example VII.

Of Dozen.

Gr.Gross.	*Sm.Gr.*	*Doz.*	Things *Pieces.*
56	10	06	11
148	09	11	03
26	11	01	09
533	02	08	10
765	10	04	09

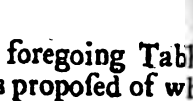
Totals

By theſe few Examples, with the help of the foregoing Tables, the Learner will be enabled to add any Numbers propoſed of what Denomination ſoever; which Tables he will find exceeding Uſeful, not only in this Rule of Addition, but likewiſe in the following Parts of Arithmetick and Merchants Accompts.

§. 6. *The Reaſon and Demonſtration of Addition.*

BY *Euclid*, Lib. 1. Axiom 9. of his *Elements*, the Whole is equal to all its Parts taken together.

So the Right-line (*gb*) is equal to the 3 lines *ab*, *cd*, and *ef*:



For the 3 lines *ab*, *cd*, and *ef*, being all the Parts contained in the whole line *gb*, and the line *ab*, added to *cd*, and that Summ to *ef*, making up the line *gb*; therefore the line *gb*, is equal to the Summ of the Parts, *viz.* to *ab*, more *cd*, more *ef*, taken together:

Or, in Numbers I ſay, that 15, 16, and 42, make up 73; which cannot be denied, ſince there are no more Units in 73, but 15, 16, and 42; and the Units in 15, 16, and 42, making 73; therefore the Number 73, muſt be equal to the Numbers 15, 16, and 42.

Parts	15
	16
	42
Total--	73

2. The Reaſonableneſs of the Rules given for adding Numbers together, will thus appear from what was ſaid in Numeration, of the places of Numbers: For in Addition every degree or place muſt be added to the like degree or place; ſo that in the Units place, if there is one or two Tens, it is plain that thoſe one or two Tens muſt be added to the Numbers in Tens place, becauſe they are of the ſame Denomination; ſo if in a Rank of Figures (in Tens place) I find 2 or 3 times Ten, for every 10 in Tens place, I have One Hundred to carry to the Hundreds place; for 10 times 10 is One Hundred, as was obſerved before; Hundreds muſt be added to the Hundreds, becauſe 'tis of the ſame degree or place.

For

For Example.

In adding 149 *l.* 17 *s.* to 18 *l.* 8 *s:* I ſay, 8 Shillings and 7 ſhillings, is 15 ſhillings, which is 1 Ten to be carried to the place of Ten ſhillings; which one Ten being added to the other Ten, makes two Tens, or 20 ſhillings: which being one Unit of the next Denomination, *viz* Pounds, I therefore add the 1 pound to the Units place of pounds; ſaying, 1 and 8 is 9, and 9 is 18 pounds; which 8 being Units of pounds, I place it in the Units of the Pounds place of the Summ, and carry the 10 Pounds to the 10 Pounds place, of which Denomination it is one: So 1 Ten and 1 Ten is 2 Tens, and 4 Tens is 6 Tens, which being leſs than 10 Tens, or 100, I have nothing to carry to the Hundreds place; ſo I place 6 in the Tens place of the Summ, and put the 100 to the Left-hand in Hundreds place of the Summ: This being obſerved, any Summ may be added, without carrying any thing from one degree or place to another, (which is done purely to ſave trouble:) For inſtance;

	l.	*s.*	
	149	17	} Parts.
	18	8	}
	168	5	Total.

Let it be required to add,	2976 4132 8647
Summ	15755

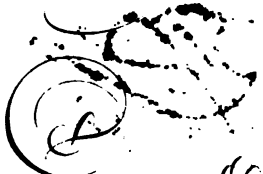
The Summ of the Figures in Units place is	15
Of Tens place is	140
Of Hundreds place is	1600
And of Thouſands place is	14000
The Total of which is	15755

Equal to the firſt Total.

Becauſe Addition and Subſtraction do prove each other, I ſhall ſhew the Proof of Addition after Subſtraction, which followeth.

Chap: 3.

Subtraction Teacheth to take a Lesser Number from a Greater and to know ye Remainder



	7582094	457 : 09 : 07 1/4
	6129762	126 : 16 : 10 1/2
	1452332	330 : 12 : 08 3/4
	7582094	457 : 09 : 07 1/4
	5469387	602 : 11 : 08
	2672052	74 : 19 : 10 1/2
	2797335	527 : 11 : 09 1/2
	5469387	602 : 11 : 08 0/0
	1020060	894 : 00 : 01 1/2
	40709	372 : 14 : 09 3/4
	979351	521 : 05 : 03 3/4
	1020060	894 00 : 01 1/2

allance

CHAP. III.

SUbſtraction is either,

1. Of Numbers of one Denomination: Or,
2. Of divers Denominations, and is the Converſe of Addition.

§. 1. *When you have placed the Numbers in Order, the leſſer under the greater, as is uſual, unleſs it may, as ſometimes it does, (by having the leſſer Number uppermoſt) ſave the trouble of removing a Number; this is the*

Rule.] Having drawn a Line under the Numbers given, begin with the Digit ſtanding in the Units place, of the Number to be ſubſtracted, and take it from the Figure poſſeſſing the like place of the greater Number; placing the Exceſs or Difference under the line, doing in like manner with all the reſt. But if the Figure in the leſſer Number be greater than the Figure poſſeſſing the like place in the greater Number; then you muſt add 10 to the ſaid leſſer Figure, and ſo proceed to take the ſaid greater Number from the Summ, placing the Remainder under the line; and becauſe the 10 borrowed was ſuppoſed to be taken from the next Figure toward the Left-hand, therefore add one to that Figure, and ſo proceed to ſubſtract, as in the former, placing the Exceſs under the line, as before.

Example.] Admit I have laid out Caſh, to the Summ of 4579 pounds, out of 6947 pounds, which I had in Bank, what Summ remains yet in my hands?

The Numbers being placed, take 9 in the Units place of the lower line from 7, in the like place in the upper line; but becauſe you cannot, borrow 10 from the 70, which ſtands in the Ten's place, and add to the 7 which ſtands in the upper line, making it 17; ſo 9 from 17 will leave 8: which put under the line, and ſay, 1 (that is 1 Ten) I borrowed and 7 is 8, from 4 and 10 you borrowed as before, that is from 14, leaves 6; which place under the line, ſaying, 1 you borrowed and 5 is 6, from 9 leaves 3, and 4 from 6 leaves 2; which being put under the line, there will appear to remain in my hands 2368 pounds.

	l.
	6947
	4579
Remains	2368

In like manner, in the firſt Example foregoing, if you take 6129762 Hundred from 7582094, there will remain 1452332;

for 2 from 4, and there reſts 2; 6 from 9, reſts 3; 7 from 10, (which I borrowed) reſts 3; 1 borrowed and 9, is 10, from 12, reſts 2; 1 borowed and 2 is 3, from 8 reſts 5; 1 from 5, reſts 4; and 6 from 7, and there reſteth 1; ſo the Difference between the Numbers given is 1452332.

§. 2. *How to ſubſtract Numbers of divers Denominations.*

In the firſt Example foregoing of Pounds, Shillings, Pence and Farthings, you have 126 *l.* 16 *s.* 10½. to deduct from 457 *l.* 9 *s.* 7½ *d.* To perform which, begin with the farthings; ſaying, 2 from 1, you cannot; but 2 from 4 farthings (or 1 Penny which you borrow from the pence) and the 1 farthing in the upper line, that is, from 5, and the remainder is 3 farthings; which put under the line as you ſee, ſaying, 1 I borrowed and 10 pence is 11 pence, from 7 pence you cannot, but from 19 (borrowing 1 ſhilling or 12 pence from the ſhillings, and adding to the 7) and the Remainder is 8 pence; which put under the line, and ſay, 1 ſhilling you borrowed and 16 ſhillings is 17 from 29 ſhillings (borrowing 20 ſhillings or 1 pound from the pounds, and adding to the 9 in the upper line) and there reſteth 12 ſhillings, which place under the line, and ſay, 1 pound you borrowed and 6 (in the pounds place) is 7, from 7, leaveth (0), put (0) under the Units place of pounds, and ſay, 2 from 5, and there reſteth 3, and 1 from 4, and there remains 3: ſo the Remainder is 330 *l.* 12 *s.* 8¼ *d.*

More Examples follow.	*C.*	*Qrs.*	lb
Bought Cotton Woell	121	1	20
Sold out	92	3	27
Remains	28	1	21

	lb.	℥.	*p w.*	*gr.*
Bought Silver, Weight	19	00	09	14
Sold out at one time	4	10	16	00
At another time	12	09	04	16
In all:	17	08	00	16
Reſteth unſold	1	04	08	22

℔. ℥. *Dr*

§. 3. *A Second Way of Subſtraction.*

I think it a much better Way, when any thing is borrowed, to add to the Figure in the Number from whence you ſubſtract, in caſe 'tis too little, to take what is borrowed from the Figure ſtanding next towards the Left-hand of the Figure that is too little, and ſuppoſe the Figure from whence you borrow to be ſo much leſs: So will you never need to pay what was borrowed, as is before taught.

EXAMPLE.

Here, inſtead of ſaying 4 from 11 reſts 7, and 1 borrowed and 8 is 9, from 12 reſts 3: It will be much leſs trouble to ſuppoſe the 10 borrowed to be actually taken from the 2 as it really is, and ſo the reſt of the Figures: ſo muſt you ſay 4 from 11 reſts 7, 8 from 11 reſts 3, 1 from 8 reſts 7, 9 from 17 reſts 8, 2 from 2 reſts 0. This way of Subſtraction is much more natural and reaſonable than the former, or common way; but the Learner may uſe which he pleaſeth: though I doubt not, but were this way as much practiſed as the former, it would be found much better.

From	37921
Take	29184
Difference	8737

§. 4. *The Reaſon and Demonſtration of Subſtraction.*

From the Axiom aforeſaid of the Whole, being equal to all its Parts taken together, we may demonſtrate (or undeniably prove) the Premiſſes. For the Number from whence we make Subſtraction, is the whole; and the Number to be ſubſtracted, is part of that whole. Now if the part be taken from the whole, what remains will be the true Difference between the part and the whole; for the whole containeth no more parts than the Summ made up of the part taken away and the part remaining; and the part taken from the whole, is only ſo much leſs than the whole, as the part remaining: Therefore the part remaining is the true Exceſs or Difference between the whole and the part taken from it.

As to the Reaſon of the Rule for Subſtraction, I need ſay no more than what is above concerning the ſecond way of Subſtraction, and what

what was ſaid in the Reaſon of Addition, and what follows in the proving Subſtraction.

§. 5. *The Proof of Subſtraction two ways.*

The Demonſtration foregoing is ſufficient to prove the Truth of Subſtraction: But becauſe there was no Example, take theſe following.

The Summ of the Subſtrahend and Remainder is equal to the Number given, from whence Subſtraction is to be made: For inſtance:

From 56742
Take 39752 } Add.
Remains 16990 }

Proof 56742 the Summ, equal to the Number, from whence Subſtraction is to be made.

Or thus by Subſtraction.

From the whole 56742
Take the part 39752

Remains 16990 Which deduct from the Whole,

And there reſteth the Part given to be deducted } 39752 for Proof.

§. 6. *The Proof of Addition two ways.*

After you have taken the Summ of the Numbers given to be added, you may prove the Truth of the Summ by ſeparating the ſaid Numbers into two parts with a line, and the Summs of thoſe parts will (if there be no Error) be equal to the Aggregate or Summ of all the Numbers given.

EXAM-

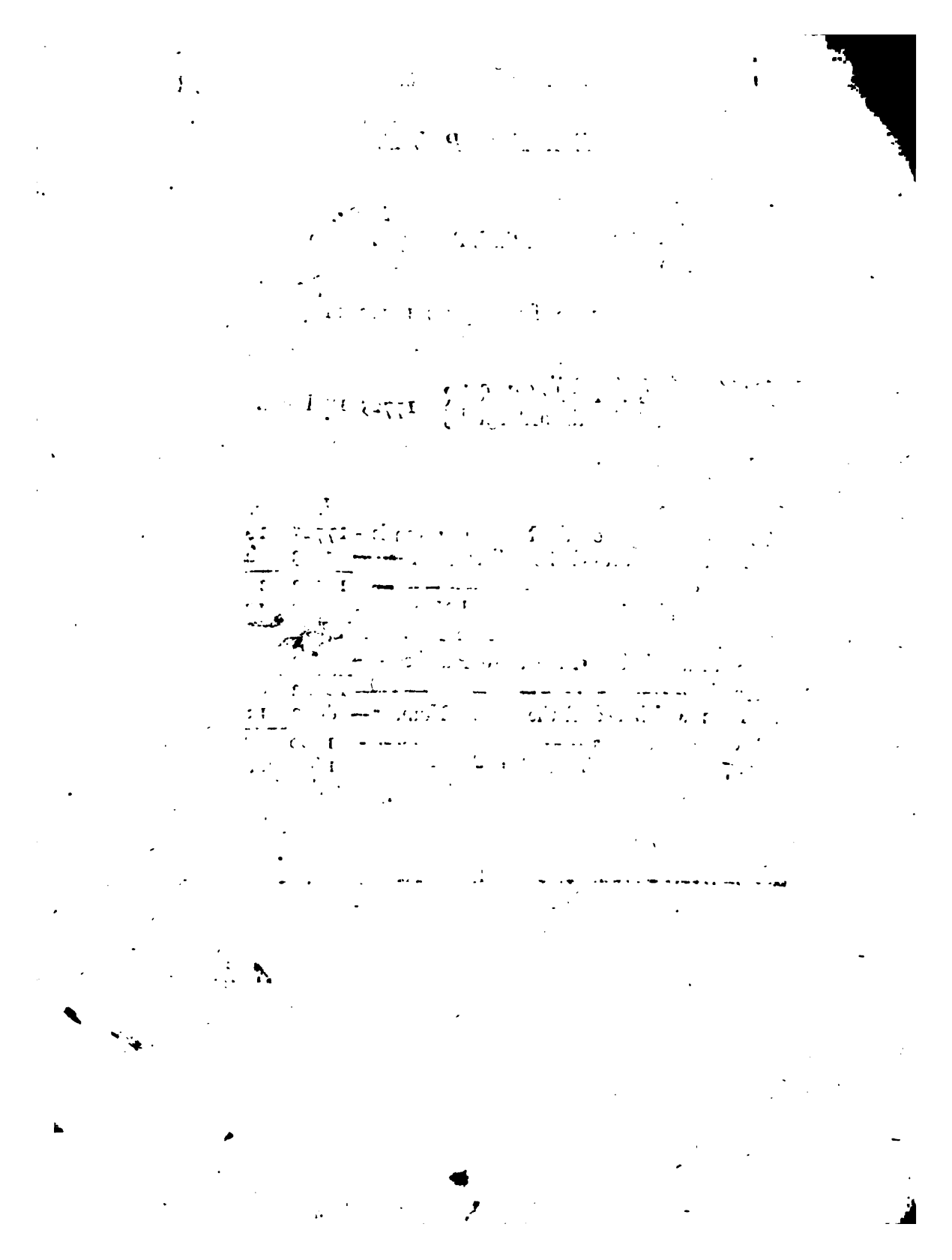
EXAMPLE.

l.	*s.*		*l.*	*s.*	
5762	4				
397	12	The Summ of theſe Parts	7182	17	Add.
1023	01				
8942	13				
1600	08	The Summ of theſe parts	10543	01	
17725	18	The Total.			
		The Total of theſe is equal to the firſt Total.	17725	18	Proof.

Or thus by Subſtraction.

	l.	*s.*
The Total Summ of the Numbers given is—	17725	18
from which deduct the firſt Number——	5763	4
Remains——	11963	14
from which deduct the ſecond Number—	397	12
Remains——	11566	02
from which deduct the third Number——	1023	01
Remains——	10543	01
from which deduct the fourth Number—	8942	13
And there remains——	1600	08
equal to the fifth Number——	1600	08

Which proves the Work.



Multiplication Table.

3 times	3 : 9	
	4 : 12	
	5 : 15	
	6 : 18	
	7 : 21	
	8 : 24	
	9 : 27	
4 times	4 : 16	
	5 : 20	
	6 : 24	
	7 : 28	
	8 : 32	
	9 : 36	
5 times	5 : 25	
	6 : 30	
	7 : 35	
	8 : 40	
	9 : 45	
6 times	6 : 36	
	7 : 42	
	8 : 48	
	9 : 54	
7 times	7 : 49	
	8 : 56	
	9 : 63	
8 times	8 : 64	
	9 : 72	
9 times	9 : 81	
	10 : 90	
	11 : 99	
12 times	2 : 24	
	3 : 36	
	4 : 48	
	5 : 60	
	6 : 72	
	7 : 84	
	8 : 96	
	9 : 108	
	10 : 120	
	11 : 132	
	12 : 144	

CHAP. IV.

2. *A Brief Multiplication Table.*

Times	5.	6.	7.	8.	9
5—is	25,	30,	35,	40,	45
6——		36,	42,	48,	54
7——			49,	56,	63
8——				64,	72
9——					81

3. *The ſhorteſt Multiplication Table that has been invented.*

∝ 5, 4, 3, 2, 1. *Two of theſe multiply reſpectively (or ſquare one Number.)*
☞ 5, 6, 7, 8, 9. *Numbers, whereof the Prod. of 2 is required (or the Squ. of one.)*
† 0,10,20,30,40. *Two of theſe, add reſpectively (or double one Number.)*

Example.] How many is 6 times 9? Under 6 (in the middle line) ſtands 10: under 9 is 40, the Summ of which is 50. And the 4 (which ſtands over 6) multiplied by the 1 (which ſtands over the given 9) is 4; which add to the 50, the product of 6 times 9 is 54.

Example 2.] 5 times 8 is 40; for 30 (under the 8 in the middle line) added to 0 (under 5) the Summ is 30. And 5 (over the given 5) multiplied by 2 (which is placed over the given 8) is 10, which added to the 30, the Summ is 40.

Example 3.] To ſquare any of the middle Numbers (or multiply it by it ſelf.)

As ſuppoſe 8 times 8; double the Number under 8, (which is 60,) and ſquare that above 8, (which is 2 times 2, or 4,) ſo the Anſwer is 64.

Note, It is reaſonably ſuppoſed that any one can multiply 9 or any N° under that, by any of the 3 multiplying Digits under 5, without a Table. A little Practice makes this Table as eaſie to uſe as any, if not eaſier, there being ſo few Numbers to inſpect.

MUltiplication is a Rule by which any Number may be ſo increaſed by multiplying it by another, as to produce a third Number, which ſhall bear ſuch Reaſon or Proportion to either of the Numbers given, as the other does to a Unit.

The two Numbers given to be multiplied, are for ſhortneſs termed the Factors. Or,

The one (commonly the greater) is called the Multiplicand, and is the Number given to be multiplied.

The other is called the Multiplier, and is that Number by which the Multiplicand is multiplied.

The third Number, which is that produced by multiplying the two given Numbers together, is called the Product, or in Geometry it is called the Rectangle.

By this Rule is compendiouſly performed many Additions, As 4 times 80 is 320, which would require three Additions to know; as you ſee in the Margent.

Multiplicand 80 } Factors.
Multiplier 4 }

Product 320

80
80
80 } Add.
80

320 Summ.

Multiplication is either Simple or Compound.
Simple when the Factors are both Digits: And,
Compound when the Factors are one or both mixt Numbers or Articles.

[Before you go any farther, you muſt get the foregoing Tables by heart; which ſuppoſing you have done, take the following Rules for working any Summ propounded.]

Caſe 1.] When the Product of each Figure in the Multiplicand, by the Multiplier, is leſs than Ten, how to multiply by a Digit.

Rule] Having placed the Factors, Units under Units, as in the Margent, multiply each Figure in the Multiplicand by the Multiplier, and place the ſeveral Products under the line, beginning with the Figure in the Units of the Multiplicand.

Example] What comes 3214 pound of Tea to, at 2 pounds *per* pound?

Say, 2 times 4 is 8, which put under a line, as in the Margent; ſaying, 2 times 1 is 2, 2 times 2 is 4, and 2 times 3 is 6: ſo the Anſwer is 6428 *l.*

3214
2

Product *l.* 6428 Anſ.

Caſe 2.]

Caſe 2.] When the Product of any of the Figures in the Multiplicand, by another in the Multiplier, is 10, or any Number of Tens.

Rule] Put down in the General Product the Number of Units, that the Product of any 2 Figures in the Factors are above 10, or any Number of Tens, and carry the ſaid 10 or Tens to the Product of the next Figure, and ſo proceed till all the Figures in the Multiplicand are multiplied by the Multiplier.

Example.] What is the Price of 3484 Sacks of Cotton, at 9 pounds *per* Sack?

3484 } Factors.
9 }

According to the Rule, ſay, 9 times 4 is 36: put the 6 under the line, and carry 3; ſaying, 9 times 8 is 72, and 3 I carry is 75: put down the 5, and carry 7; ſaying, 9 times 4 is 36, and 7 is 43: put down 3, and carry 4; ſaying, 9 times 3 is 27, and 4 I carry is 31: which put all down: ſo will you find the Anſ. 31356 *l.* as *per* Margent.

Anſ. *l.* 31356 Product.

Caſe 3.] When the Factors are each above 10, how to find the Product.

Rule] Multiply the Figures in the Multiplicand by that ſtanding in the Units place of the Multiplier, as before, and in like manner multiply the Multiplicand by the Figure ſtanding in the Tens place of the Multiplier: but you muſt place the Units place of the ſecond Product under the Tens place of the firſt, and the other degrees in order; Tens under Hundreds, Hundreds under Thouſands of the firſt Product: which done, add the Products together, and the Aggregate or Summ is the General Product required.

Example.] What is the price of 594 Ton of Iron, at 18 pounds *per* Ton?

594 } Factors.
18 }

4752
594

Anſ. *l.* 10692 Product.

Note, That if there had been 3 Figures in the Multiplier, when you were to multiply by that in the Hundreds place; the firſt Figure of the Product muſt have been placed under the 9 in the lower of theſe Products: The following Examples will make it plain.

Example 2.] What is the Value of 978 Hogs-heads of Sugar at 213 ſhillings *per* Hogs-head? See the Work by the Rules above.

978
213

2934
978
1956

Anſwer 208314 ſhill.

Case 4.] When you have any Number of Cyphers towards the Right-hand of the Multiplicand and Multiplier, or either of them, Multiply by the ſignificant Figures, and put the Cyphers toward the Right-hand of the Product.

Example 1.] Admit the Earth's Circumference is 360 Degrees, and that one Degree is 60 Miles, how many Miles is it round the Earth?

360 Degrees.
60 Miles. } Factors.

Anſwer 21600 Product.

Example 2.] If in a Mile is 1000 Paces, how many Paces in 1000 Miles?

1000
1000 } Factors.

Anſwer 1000000 Product.

In this and the like Examples where the Multiplier is only a Unit with Cyphers, place thoſe Cyphers to the Right hand of the Multiplicand, and you have the true Product; for 1 neither augmenteth nor diminiſheth any Number by Multiplication nor Diviſion, and is therefore by ſome ſaid to be no Number; but 1 and 1 being 2, proves the contrary.

Case 5.] When Cyphers poſſeſs any other place than next the Right-hand of the Multiplier.

Rule.] When Cyphers ſtand in the middle of the Multiplier, you muſt place the Units place of the product made of the Figure ſtanding next the Cyphers toward the Left-hand, ſo many places forward as there are Cyphers in the ſaid Middle, ſupplying their places with as many points; ſo will you not need to make ſo many lines of Cyphers, as many ignorantly do.

Example.] Multiply 3942300
by 720020 } Factors.

78846
78846
27596
2838534846000 Product.

§. 2. The

§. 2. *The Reaſon and Demonſtration of Multiplication.*

If two Lines (or Numbers) be given, and one of them be divided into any Number of Parts; the Product made of the two whole Lines (or Numbers) is equal to the Product made of the whole Line (or Number) and the ſeveral Parts of that divided. *Vid.* Euclid's *Elements*, *Prop.* 1. *Lib.* 2.

To inſtance in Numbers: If 346 were to be multiplied by 122, which 122 ſuppoſe divided into 3 parts, *viz.* 100, 20 and 2: I ſay, the Product made of 346 by 122, is equal to the Summ of the Products, *viz.* 346 by 100, 346 by 20, and 346 by 2; as followeth.

		346	346		346	
		100	20		2	
1ſt.	Product—	34600	6920	*2d.* Product	6923	*3d* Prod.
2d.	Product—	6920				
3d.	Product—	692				
	Summ—	42212				

The Product, equal to the Product of 346 by 122.

692
692
346

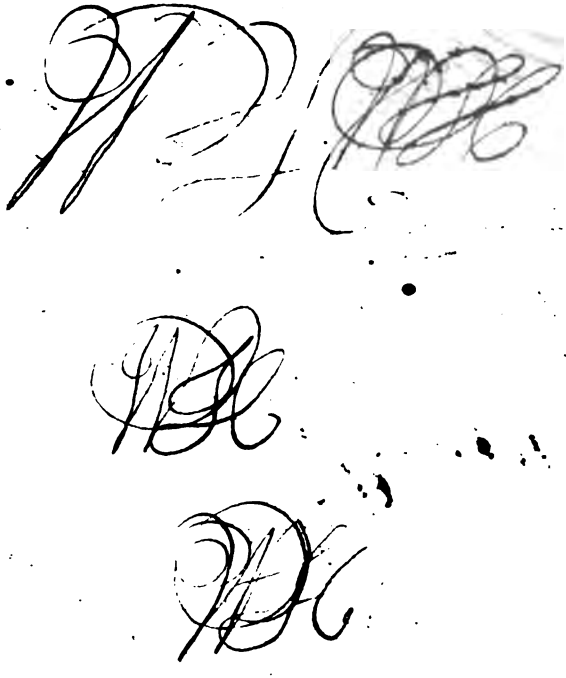
Viz. 42212

For there being no more Units in 42212, than in the Products 34600, 6920, and 692; nor any more Units contained in the Products 34600, 6900, 692, but what is contained in the Product 42212; therefore the Products 34600, 6920, and 692, are equal to the Product 42212.

From hence alſo is the reaſon of placing the Units of the ſecond Product, under the Tens of the firſt; Units of the third, under Tens of the ſecond, *&c.* As in the Example; where 324 by 3, is 972; 324 by 20 (2 being in Tens place) is 6480; and 324 by 100 (1 being in Hundreds place) is 32400; and if the 3 Cyphers be omitted (which 'tis moſt proper to do, ſince they make no Number greater by Addition) the Numbers will ſtand as in ordinary Summs in this Rule: ſee the Margent.

324	
123	
972	
6480	
32400	
The Summ	39852

The



The Rule teacheth to Divide or Seperate any Number or Quantity into as many parts as you please.

THE Dividend is the Number given to be divided.

The Diviſor is the Number by which the Dividend is divided.

The Quotient is the Number of times that the Diviſor is contain'd in the Dividend.

The Remainder is the Number that may remain of the Dividend after the Diviſor is had as many times in it as is expreſſed in the Quotient: From whence it follows, that the Remainder muſt be always leſs than the Diviſor, or otherwiſe the Diviſor might be had oftner in it.

As Multiplication is a compendious way of Addition, ſo Diviſion is the work of many Subſtractions; for if 12 be divided by 4, the Quotient will be 3; for 4 may be taken 3 times out of 12.

Dividend
Diviſor 4) 12 (3 Quotient
0 Remainder.

1ſt. From 12
Take 4
Remains 8
2d. Take 4
Remains 4
3d. Take 4
0.

There are ſeveral ways that I could eaſily ſhew for the dividing one Number by another; but I ſhall only inſert one, which is plainer than Cancelling, and ſhorter than the other ways commonly practiſed; and is therefore, in my opinion, the beſt.

Caſe 1.] To divide any Number by a Diviſor, conſiſting but of one place.

Let it be required to divide 37642 by 7.

Having made a crooked (or any other) Line at each end of the Dividend, to ſeparate it from the Diviſor and Quotient, make a point or prick under 7 in the Dividend, (not under 3, becauſe you cannot take the Diviſor from the 3,) and ſay; how often is 7 (the Diviſor)

Diviſor) contained in 37, the firſt Branch toward the Left-hand of the Dividend? the Anſwer is 5 times; which (5) put in the Quotient, and multiply the Diviſor thereby; ſaying, 5 times 7 is 35; which deduct from the ſaid 37, and put the Remainder (which is 2) under a Line; as in the Example:

Then making a prick under the 6 (as a diſtinguiſhing Mark, that no Figure may be brought down twice) place it to the Right-hand the Remainder, 2, and aſk how often 7 is contained in 26? the Anſwer is 3 times; which put in the Quotient, as before, multiplying the Diviſor thereby: As, 3 times 7 is 21, from 26, and there remains, 5; which put under the 6, drawing a Line between the 26, and the 5: Then make a prick under the next Figure towards the Right-hand, in the Dividend; *Viz.* under (4,) and place it to the Right-hand the Remainder 5, making it 54, and aſk how often the Diviſor (7) can be had in 54? the Anſwer is 7 times; which put in the Quotient, and ſay, 7 times 7 is 49, from 54 and there reſts (5,) which put under a Line, as before. Laſtly, make a prick under the 2 in the Dividend, and place it to the Right-hand of the 5, and aſk how often the Diviſor (7) can be had in 53? the Anſwer is 7 times: which put in the Quotient, and multiply the Diviſor thereby; ſaying, 7 times 7 is 49, which deduct from the 52, and the Remainder is 3; and you have no more Figures in the Dividend. So the Word is finiſhed: and I find that 5377, is one ſeventh part of 37642, and 3 over.

```
7) 37642 (5377
   ....
   ----
    26
    --
    54
    --
    52
    --
     3 Remains.
```

The Rules for the laſt Operation, are thus contracted.

How often 7 in { 37, 26, 54, 52 } Anſwer { 5, 3, 7, 7 } times 7 is { 35, 21, 49, 49 } from { 37, 26, 54, 52 } Reſts { 2, 5, 5, 3 } To which, bringing down the next Figure, makes { 26, 54, 52 }

Example

Example 2.] By the foregoing Method is the Number following divided, *viz.* 917640 by 9.

Dividend
Diviſor 9) 917640 (101960 Quotient.
.....

17

86

54

(00) Remains.

Note, That when the Diviſor cannot be had, in any part of the Dividend that is brought down under a line: In ſuch caſe you are to put a Cypher in the Quotient, and bring down the next Figure in the Dividend; as in the Example 9 cannot be had in (1,) therefore (0) is put in the Quotient, and 7 brought down, which makes the 1 to be 17, *&c.*

Caſe 2.] To divide any Number by a Diviſor, conſiſting of 2, 3, or 4 places.

Rule.) It many times happeneth in dividing a Summ by 2, 3, *&c.* Figures; That though you can have the firſt Figure of the Diviſor in the firſt of the Dividend, yet you cannot have the reſt of the Figures of the Diviſor in the like Number of Places of the Dividend; as if 316 be divided by 182, in this caſe 1 (the firſt of the Diviſor) can be had 3 times in 3, (the firſt Figure in the Dividend,) but the reſt of the Figures in the Diviſor, *viz.* 82, cannot be had 3 times in 16 (the reſt of the Figures in the Dividend;) therefore you muſt make trial whether the Diviſor can be had one time leſs in the Dividend: As here; ſee if 182 can be had 2 times in 316, and multiply in your mind, (or on ſome piece of Waſt-paper) 182 by 2; which Product, if you find yet more than the Dividend 316, (as in this Example you will, and conſequently it cannot be deducted from it,) then take 182 but 1 time in 316, and put one in the Quotient. Take good notice of this, for it is the only difficult thing in Diviſion; and that it may appear plain, take the Example following.

Let it be required to divide 75231 by 24?

To perform this?

1. Make a Point under 5. becauſe you can deduct 24 from 75, otherwiſe the Point muſt have been made under the third Place.

2. Ask how often 2 can be had in 7? the Anſwer is 3 times.

3. Before you put the 3 in the Quotient, make trial in your mind, if the Product of 24 (the Diviſor) by 3, do not exceed 75, which you will find it does not.

4. Therefore put 3 in the Quotient, and ſay, 3 times 4 (the Units place of the Diviſor) is 12; which deduct from 5, and 10 that you borrow (for you muſt always borrow ſo many Tens, as that the ſaid Product of the Figure in the Quotient and Diviſor may be deducted,) that is, from 15, and the Remainder is 3; which put under a Line, and carry the 1 Ten you borrowed in your mind; ſaying, 3 times 2 (in the Diviſor) is 6, and 1 you borrowed is 7, from the 7 in the Dividend, and the Remainder is (0.)

5. To the Remainder (3) bring down the next Figure in the Dividend, which is 2.

6. Ask how often 2 can be had in 3? or how often 24 (your Diviſor) can be had in 32? the Anſwer is 1.

7. Put 1 in the Quotient.

8. Multiply 24 (the Diviſor) by 1; ſaying, 1 time 4 is 4 from 12 (borrowing 10) and there reſts 8; which put under the line, ſaying, 1 time 2 is 2, and 1 borrowed is 3, from 3, and the Remainder is (0.)

```
24) 75231 (3134
    ...
    ---
Remains 32 Brought down.
    ---
Remains 83 Brought down.
    ---
Remains 111 Brought down.
    ---
      15. Remainder.
```

9. To the Remainder 8, bring down the next Figure in the Dividend, which is 3, (always making a point under the Figure you bring under the line, for the reaſon aforeſaid) ſo have you 83; enquire therefore,

10. How often 2 the firſt Figure in the Diviſor toward the Left-hand can be had in 8? the Anſwer is 4 times: but if you make trial, you:

you will find the Product of 24 by 4 to exceed 83; ſo that you can have but 24, 3 times in 83.

11. Put 3 therefore in the Quotient, as you ſee in the Example.

12. Multiply 24 the Diviſor by 3; ſaying, 8 times 4 is 12, from 13 (borrowing 10 to add to the 3 laſt brought down) and there remains 1: which put under the line as you ſee; ſaying, 3 times 2 is 6, and 1 borrowed is 7, from 8 and there remains 1: which being in the Ten's place, makes Eleven.

13. To this 11 bring down the laſt Figure from the Left-hand in the Dividend, *viz.* (1.) and you have 111.

14. Enquire how often 24 (the Diviſor) can be had in 111, or how often 2 in 11, (becauſe 111 is 1 place more than 24,) the Anſwer is but 4 times, for if you take it 5 times, you cannot deduct 5 times 24 from 111.

15. Multiply 24 the Diviſor by the Figure you put in the Quotient, which is by 4; ſaying, 4 times 4 is 16, from 21, (borrowing 2 Tens to add to the 1 in Units place) and there reſts 5, and carry 2, and 4 times 2 in the Diviſor is 8, and 2 borrowed is 10, from 11 the laſt Remainder, and there remains 1. So the Work being finiſhed, I find that 24 is contain'd in 75231, 3124 times; which I have made ſo plain (proceeding ſtep by ſtep) that any one, though of ordinary Capacity, may underſtand it; and by it any other of the like Nature, though the Diviſor conſiſts of never ſo many Figures: Take one other Example of this Caſe.

Let it be required to divide 319462 by 548.

548) 319462 (582

4546

1622

526 Remainder.

By the Rules foregoing, this laſt Operation will be peformed as followeth, being contracted.

How often 548 in { 31946 / 45466 / 16222 } Anſwer { 5 / 8 / 2 }

5 Times:
8 is 40 from 44, reſts — — — 4
4 is 20, & 4 is 24, from 29, reſts — 5
5 is 25, and 2 is 27, from 31, reſts 4

Remains 454 : To which bring the 6, and enquire.

8 Times:
8 is 64, from 66, reſts — — — 2
4 is 32, and 6 is 38, from 44, reſts — 6
5 is 40, & 44 is 44, from 45, reſts — 1

Remains 162 : To which bring the 2, and enquire.

2 Times:
8 is 16, from 22, reſts — — — 6
4 is 8, & 12 is 10, from 12, reſts — 2
5 is 10, & 1 is 11, from 16, reſts — 5

Remainder 526

Caſe 3.] When Cyphers poſſeſs the firſt, ſecond, third, *&c.* Places of the Diviſor, how to abbreviate the Work.

Rule.] As many Cyphers as you have in the Diviſor, (toward the Right-hand) ſo many Figures ſeparate (toward the Right-hand of the Dividend) from the reſt by a point or daſh with the Pen, and divide the remaining Figures toward the Left-hand in the Dividend, by the ſignificant Figures in the Diviſor, leaving out the Cyphers : See the Operation following.

15629|00)

15629|00) 1374281|20 (87

123961

1455820 Remains to be divided into 1562900 Parts, which will be less than a Unit.

EXAMPLE 2.

197281|000) 5171624|1|0|2|3|5|0 128 (26214506

1226004
423181
286190
889092
999683
132785
1327859
144164 128 Remains to be divided into 197281000 Parts.

EXAMPLE 3.

1|00) 36|54 (36

54 Remainder to be divided by 100.

Note, That when the Divisor is a Unit with Cyphers, as in this last Example; then if you separate so many Figures from the Right-hand of the Dividend, as there are Cyphers toward the Right-hand in the Divisor (as was taught before) that part of the Dividend toward the Left-hand of the Dash is the Quotient, and that to the Right-hand is the Remainder: As in this Example, you see 36 is the Quotient, and 54 the Remainder: Because when the Cyphers are cut off the Divisor, there remains only 1 to divide by; and it has been taught before, that no Number is made less by dividing by 1.

§. 12. *The*

§. 2. *The Manner of working Diviſion explained, and the Reaſon of it ſhewed.*

The two great Difficulties that appear in Diviſion, are,

1. That when a Number is to be divided by another, conſiſting of ſeveral Degrees or Places of Figures, it cannot be known without Trial, how often the Diviſor can be had in the Dividend.

2. The ſubſtracting the ſeveral Products made of the Quotient, and Diviſor from the Left hand of the Dividend, ſeems incoherent with the Rules of Subſtraction, of deducting Units place from Units, Tens place from Tens, *&c.*

To remove both which Difficulties, take the Example and Rules following, where the whole Work of Diviſion is made plain and eaſie to be underſtood by a mean Capacity.

The Example I make uſe of ſhall be to divide 19467281 by 426.

The Work of Diviſion Explain'd.

Products of the Diviſor.		
by 1 = 426)	19467281	(40000=Firſt Quotient.
	17040000	
by 2 — 852	2427281	5000=Second Quotient.
by 3 — 1278	2130000	
by 4 = 1704	297281	600=Third Quotient.
by 5 = 2130	255600	
by 6 = 2556	41681	90=Fourth Quotient.
by 7 = 2982	38340	
by 8 = 3408	3341	7=Fifth Quotient.
by 9 — 3834	2982	
	(Rem. 359)	45697=The Summ of theſe Quotients, which is the true General Quotient.

In this Example,

1. I have made Products of the Diviſor, multiplying it by the ſeveral Digits, againſt which the ſaid Products ſtand.

2. As

2. As is uſual I put a prick under the 6 in the Dividend, becauſe I can take the Diviſor from the 4 firſt Figures towards the Left-hand of the Dividend.

3. I conſider what place the firſt Figure in the Quotient toward the Left-hand will poſſeſs, which is always the ſame with the Figure under which the firſt Point or Prick is made, and in this Example is Tens of Thouſands place; ſo that what Figure ſoever is firſt put in the Quotient, is ſo many Tens of Thouſands.

4. I look in my 9 Products which of them is next to, and leſs than the 4 firſt Figures to the Left-hand of the Dividend, and find the Product 1704 to be next; right againſt which, in the Series of Digits, ſtands 4, wherefore I put 4 in the Quotient, which is 40000, becauſe (as was ſaid in the laſt ſtep) the Quotient will have 5 Places.

5. I multiply the ſaid 1704 by 10000, becauſe the 4 is in that place, or the Diviſor by 40000, and the Product is 17040000, which (according to the true Rules of Subſtraction) is to be taken from the whole Dividend, and the Remainder (as in the Example) is 2427281.

6. I look as before, which of the 9 Products is next to, and leſs than the 4 firſt places toward the Left-hand of my new Dividend 2427281 (becauſe none of the Products can be had in 3 places,) and I find 2130: right againſt which ſtands the Digit 5, which muſt be 5000, becauſe it is to ſtand in the Thouſands place of the Quotient, where having placed it, I multiply (as before) the 2130 by 1000, or the Diviſor by 5000, and deduct the Product from the new Dividend 2427281, proceeding with the reſt of the Figures till nothing, or a Number leſs than my Diviſor remains: which done

7. I ſumm up the 5 Quotients as in the Example, which make the General Quotient 45697; and ſo the Work is ended, and if the Cyphers in the Subtrahends be omitted, which ſhortens the Work, then will the Operations appear as in common Summs, which gives you the reaſon why Subſtractions ſeem to be made from the wrong end of the Dividends: This may ſuffice to explain Diviſion, which was never (to my knowledge) done by any one before.

§. 3. *The Demonſtration of Diviſion:*

The deſign of Diviſion is to diſcover how often the Diviſor is contained in the Dividend; whence it neceſſarily follows, That the Quotient contains 1, ſo often as the Dividend contains the Diviſor. And if the Quotient contains Unity as often as the Dividend does the Diviſor,

Diviſor, it follows from the 5th Definition of the 5th Book of *Eucild*'s *Elements*, That the Quotient is in proportion to 1, as the Dividend is to the Diviſor; and conſequently by the 16th of the 6th of *Eucild*'s *Elements*, the Product of a true Quotient, multiplied by the Diviſor, is equal to that of Unity by the Dividend; and all Quotients, having theſe Affections, are therefore true Quotients, and not otherwiſe.

Example.] If 144 be divided by 6, the Quotient ariſing (by the foregoing Rules for Diviſion) ſhall be 24.

For the Quotient 24 contains 1, ſo often as 144 contains 6, and conſequently by the Difinition above.

$$24.\ 1 :: 144.\ 6$$

i. e. As 24 is in proportion to 1; ſo is 144 to 6.

And by the ſaid 16 of the 6th of *Eucild*,

$$24 \times 6 :: 144 \times 1.$$

i. e. The Rectangle or Product of the 2 Extreams 24 by 6, is equal to that of the 2 mean or middle Numbers 144 by 1. So that 24 is the true Quotient of 144 by 6.

The Reſult of this Arithmetical Diviſion is the ſame with the Geometrical. And is demonſtrated by *Eucild* 44, 1, as is ſhewed by Mr. *Williams* and others in the Uſe thereof.

§. 4. *The Proof of Diviſion.*

Diviſion may be proved by dividing the Dividend by the Quotient, and the Quotient will be your former Diviſor. Or, you may prove it (as is more uſual) by Multiplication; for if you multiply the Quotient and the Diviſor together, the Product will be equal to your Dividend.

To inſtance in the Numbers following: If 1728 be divided by 12, the Quotient will be 144; and if, for proof, you divide 1728 by 144, the Quotient will be your former Diviſor (12:) Or, if you multiply 144, the Quotient, by 12, the Product will be 1728: See the Work.

```
12) 1728 (144 Quotient }
 ...      12 Diviſor  } Multiply
-----    ---
 52      288
 --      144
 48      ---
 --     1728 The Dividend for proof.
Rem. 0.
```

Or

Or thus by Diviſion.

144) 1728 (12 The former Diviſor.

288

0 Rem.

§. 5. *The Proof of Multiplication.*

The only true way to prove Multiplication, is by Diviſion; for if you divide the Product by either of the Factors, the Quotient will be the other.

Example.] In the Example of the ſecond Caſe of this Chapter, 3484 being multiplied by 9, produceth 31356; And if 31356 be divided by 9 the one Factor, the Quotient is the other Factor; as in the Example.

9) 31356 (3484 Quotient.

43

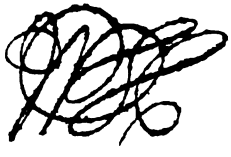
75

36

0 Remains.

Some Authors have taught to prove Multiplication, by taking the Nines out of the Factors ſingly, and multiplying the Remainders together, and taking the Nines out of the Product, noting that Remainder; then taking the Nines out of the firſt Product, and if the Remainder be equal to the formentioned, they conclude the Work to be right; but that does not at all follow, for by this Rule you may prove a Thouſand falſe Products as true ones.

Example.] Admit 3765 were to be multiplied by 58, the true Product is 218370; but if you ſuppoſe the Product 398370 (which is 180000 too much) or 245370 (which is 27000 too much) they will both prove right according to this Method; nor is there any other Method to prove Multiplication by, ſo true and conciſe as by Diviſion; tho' 'tis indeed needleſs to prove every Summ you work, by any Method, provided you be careful in the Operation; or it may not be amiſs if your Work is great, to run it over twice very carefully; and if you find both times agree, 'tis to be ſuppoſed your Work is right.



Reduction

Is a Rule Consisting of two Parts viz.ᵗ

The Reducing of a Number from a greater Denomination to a lesser Denomination as Pounds into Shillings, Hundreds into Pounds, Yards into Foot &c. which is called Reduction Descending and is performed by

Multiplication

The Reducing of a Number from a lesser to a greater Name or Denomination as Feet into Yards, Gallons into Barrells Farthings into Pounds &c. which is called Reduction Ascending & is performed by

Division

So that all Questions in Reduction are resolved either by Multiplication or Division or both which shall be further Explained by the Questions following

Sect. 2.

Caſe 1.] WHen a Number of one Denomination is given to be reduced into a leſſer Denomination.

Rule.] Multiply the given Number by ſo many Units of the inferior Denomination, into which you would have the Number given reduced, as are contained in a Unit of the Denomination which is given, and the Product is the Anſwer.

Example 1.] In 476 Pounds, how many Farthings?

476 Pounds *l.*
960 The Farthings in 1 } Multiply

2856
4284

456960 Farthings for Anſwer.

Example 2.] In 87 Hundred Weight, how many Pounds?

87 Hundred
112 Pounds in one Hundred } Multiply

174
87
87

9744 Pounds for Anſwer.

Example 3.] In 527 Ells Flemiſh, how many Quarters of a Yard, each Ell being three Quarters of a Yard?

527 Ells
3 Quarters of a Yard in an Ell } Multiply

1581 Quarters of a Yard for Anſwer.

Example 4.] In 328 Bales of Dowlaſs, how many Pieces?

328 Bales
3 Pieces in a Bale } Multiply

984 Pieces for Anſwer.

Example 5.] In 484 Groſs of Tape, each Groſs 12 Dozen, each Dozen 2 Pieces, and each Piece 36 Yards, how many Yards?

484 Groſs
12 Dozen in a Groſs } Multipl

968
484

5808 Dozen in 484 Groſs
72 Yards in a Dozen } Multiply

11616
40656

418176 Yards for Anſwer.

Caſe 2.] When it is required to reduce Numbers of divers Denominations into the loweſt Denomination.

Rule.] Work as in the laſt Caſe; but if you have any Number of the next inferior Denomination to that you are reducing, add ſuch Number to the Product.

Example 1.] In 364 *l.* 5 *s.* 5 *d.* how many Pence?

l. *s.* *d.*
364 : 05 : 5
20 The Shillings in a Pound } Multiply and add the 5 *s.*

l. *s.*
7285 Shillings in 364 : 5
12 Pence in a Shilling. } Multiply and add the 5 *d.*

14575
7285

l. *s.* *d.*
87425 Pence in 364 : 05 : 5 For Anſwer.

In the laſt Example in reducing the Pounds, ſay, (0) time 4 (in the Pounds) is (0) but 5 (in the Shillings) is 5 Shillings; then ſay, 2 times 4 is 8, *&c.* And when you come to the Shillings, ſay, 2 times 5 Shillings is 10, and 5 in the Pence place is 15 Pence, put down 5, and

and carry 1, *&c. Note*, That if you had any thing in the Tens place, either in the Shillings, or Pence, you muſt add them when you multiply by the Figure in the Tens place of the Multiplier.

Example 2.] In 48 *l.* 17 *s.* 11 *d.* 2 *q.* how many Farthings?

l.	*s.*	*d.*	*q.*	
48 :	17 :	11 :	2	
20 The Shillings in a Pound				} Multiply and add 17 *s.*
		l.	*s.*	
977 Shillings in		48 :	17 :	} Multiply, adding the 11 *d.*
12 Pence in a Shilling				
1955				
978				
		l.	*s.*	*d.*
11735 Pence in		48 :	17 :	11 } Multiply and add 2 *q.*
4 Farthings in a Penny				
		l.	*s.*	*d.*
46942 Farthings in		48 :	17 :	11 ½ for Anſwer.

Example 3.] In 47 *C.* 2 *Qrs.* 24 *lb.* how many Pounds?

C.	*Q.*	*lb.*	
47 :	2 :	24	
4 Quarters is 112 *lb.*			} Multiply and add the 2 *Qrs.*
	C.	*Q.*	
190 Quarter in	47 :	2	} Multiply and add the 24 *lb.*
28 Pound in 1 *Q.* of *C.*			
1524			
382			
	C.	*Q.*	*lb.*
5344 Pounds in	47 :	2 :	24 For Anſwer.

This Queſtion is more briefly reſolved, as in the Margent, by firſt putting down your 47 *C.* 4 Times, and the 2 *Q.* 24 *lb.* which is 80 *lb.* in Tens and Unite place, ſo the Summ is the Anſwer.

C.	*Q.*	*lb.*
47 :	2 :	24
47		
470		
478		

5344 *lb.* Anſwer

§. 3. *Re-*

§. 3. Reduction Aſcending.

To reduce Numbers from a leſſer to a greater Denomination.

Caſe 1.] When the Number given is to be reduced to the next ſuperiour Denomination.

Rule. Divide the ſaid given Number by ſuch a Number of Units of the Denomination given, as makes a Unit of the next ſuperiour Denomination, and the Quotient is the Anſwer.

Example. 1.] In 984 Pieces of Dowlaſs, how many Bales, each 3 Pieces? See the Operation.

3) 984 (328 Bales for Anſwer.

8

24

0

Example 2.] In 9744 Pounds, how many Hundreds?

112) 9744 (87 Hundreds for Anſwer.

784

0

Caſe 2.] When a Number is to be reduced to a Denomination higher than the next ſuperiour Denomination.

Rule.] Divide the given Number, as before, by ſuch a Number of Units of the Denomination given, as makes a Unit of the next higher Denomination, and note the Remainder. Then divide that Quotient by ſo many Units of that Name or Denomination, which it is of, as makes a Unit of the next higher Denomination to the ſaid Quotient, *&c.* noting the Remainders, as in the Examples following.

Example

Example 1.] In 87425 Pence, how many Shillings and Pounds?

	d.	*s.*	*l.*
12)	87425	(7285	(364
	2	0)...	
	34	12	
	102	8	
	65	05 *s.* Rem.	
	5 *d.* Remains.		

	l.	*s.*	*d.*
Anſwer	364 :	05 :	05

Example 2.] In 5344 *lb.* how many Quarters and Hundreds?

	lb.	*Q.*	*C.*
28)	5344	(190	(47
	4)		
	254	30	
Rem. (*lb.*	24	2 Quarters remains.	

	C.	*Q.*	*lb.*
Anſwer	47 :	2 :	24

Example 3.] In 418176 Yards, how many Groſs of Tape?

Divide the given Number by 72, and that Quotient by 12, for Anſwer; becauſe 72 Yards is 1 Dozen, and 12 Dozen 1 Groſs.

	Yards	Dozens	
72)	418176	(5808	(484 Groſs for Anſwer.
	....12)		
	581	100	
	576	48.	
	0 Rem.	0 Rem.	

Theſe Queſtions are the Converſe of thoſe in Reduction Deſcending, and may ſerve for the Proof of them; and likewiſe to ſhew the Learner the Nature and Effects of the Rules.

§. 4. *Re-*

§. 4. *Reduction Aſcending and Deſcending.*

Queſtions performed by Multiplication and Diviſion, are theſe that follow; and ſuch like.

Example 1.] In 874 Ells Flemiſh, how many Ells Engliſh?

Multiply the given Number by 3, and divide the Product by 5, and the Quotient is the Anſwer.

874 Ells Flemiſh
3 Quarters of a Yard in 1 Ell } Multiply

5) 2622 (524 $\frac{3}{5}$ Ells Engliſh for Anſwer.

12

22

2 Rem. Which placed over the Diviſor, is $\frac{2}{5}$.

874
6

Anſ. 524|4 or $\frac{4}{10}$ or $\frac{2}{5}$

Or Multiply by 6, and Divide by 10; which is more brief.

Note, That the Remainder is always of the ſame Denomination with the Dividend.

Example 2.] In 46 *C.* of Cotton Woell, how many Pounds, and what the Price, at 15 *d.* a Pound? Anſwer 322 *l.*

46 C.
46
46
46

5152 Pound
15 Pence for 1 Pound } Multiply

25760
5152

77280 Pence for Anſwer; which reduce into Pounds as before taught, and *per* Margent.

d.	*s.*	*l.*
12) (77280	(6440	(322
	20)	
52	4	
48	4	
Remains 0	0 Rem.	

Example

Example 3.] In 846 Dollars, each 4 *s.* 6 *d.* how many Pounds Sterling?

846 Dollars
54 Pence *per* Dollar } Multiply

3384
4230

12) 45684 *d.* (3807 *s.* (190 *l.* : 7 *s.*
2|0)

96 18
84 07 Remains.
0 Remains.

Example 4.] To reduce Flemiſh Money into Engliſh.

In 465 *l.* 13 *s.* 4 *d.* *Flemiſh*, how many pounds Sterling, at 33 *s.* 4 *d.* *Flemiſh*, for 1 pound Sterling? Anſ. 279 *l.* 8 *s.* Sterling.

Rule.] Divide the pence in 465 *l.* 13 *s.* 4 *d.* by the pence in 33 *s.* 4 *d.* and the Quotient is the Anſwer. See the Work.

s.	*d.*		*l.*	*s.*	*d.*
33	4		465	13	4
12			20		
400			9313 Shill. Flem.		
			12		

4|00) 1117|60 (279 *l.* Sterl.

31
37

160 *l.* Sterl. rem. } Multiply
20

4|00) 32|00 (8 *s.* Sterl.
0

I Thus

Thus you may reduce Flemiſh Money into Engliſh, let the Price of a pound Sterling be reckoned any other Number of ſhillings, or ſhillings and pence Flemiſh; but when the Price is as above (which is the true Value) you may perform the ſame by Multiplying the given Number by 3, and Dividing the Product by 5; for 400 Flemiſh pence are to 240 Sterling pence, as 5 is to 3.

l.	*s.*	*d.*	
465:	13:	4	*Flem.*
		3	
5) 1397:	00:	0	
Sterl. 279:	08:	00	Anſ.

Note. That French Livers, Soulze, and Deniers are reduced into Deniers (or Pence) as the Engliſh and Dutch Money is, by Multiplying by 20 and 12.

Example 5.] In 364 French Crowns, each 54¼*d.* Sterling, how many pounds, ſhillings, and pence Sterling?

Rule.] Multiply the given Crowns by 54*d.* and the Product is 19656 *d.* to which add ¼ of 364 for the farthing, and the Summ is 19747 *d.* or 82*l.* 5*s.* 7*d.* Sterling for Anſwer. But you will find a briefer way of performing theſe and ſuch like Queſtions by the Rules of Practice, which will be of great uſe in Caſting up French Bills of Exchange.

Example 6.] In 1500 Pieces of Eight *Mexico*, each 52½*d.* Sterling, how many pounds Sterling?

Rule.] Multiply the 1500 by 52, and the Product is 78000 pence; then for the ½ multiply the 1500 by 3, and divide the Product by 8, and the Quotient is 562½*d.* which add to the 78000*d.* and you have the Anſwer 78562½*d.* Sterling, or 327*l.* 6*s.* 10½*d.* And this Rule is very uſeful in Caſting up Bills of Exchange to *Cadiz*, *Legborn* and *Genoa*: but may be ſomething more briefly performed, as may all the reſt, by Decimals, or the Rules of Practice.

Example 7.] In 2900 Ducats, each 51½*d.* Sterling, how many pounds, ſhillings and pence Sterling?

Rule.] Multiply 2900 by 51, and the Product is 147900: Then multiply 2900 by 7, and divide the Product by 8, and the Quotient is 2537½*d.* which added to the 147900, the Summ is 150437½*d.* Sterling, or 626*l.* 16*s.* 5½*d.* This Example you will find uſeful in Caſting up Exchanges to *Venice*.

Example

Example 8.] In 2000 Millrees, each 6 *s.* 8½ *d.* how many pounds Sterling?

Rule.] Divide 2000 by 3, (becauſe 3 ſix Shillings and eight Pence make one pound Sterling) and the Quotient is pounds; to which add the pounds in 2000 half-pence, as 4 *l.* 3 *s.* 4 *d.* to 666 *l.* 13 *s.* 4 *d.* and the Summ is 670 *l.* 16 *s.* 8 *d.* for Anſwer; which Rule is uſeful in caſting up Bills of Exchange from *Oporto*, or *Lisbon* in *Portugal*. But if the Price of a Millree, in the Courſe of Exchange, be reckoned any other Number of Shillings and Pence, you may work either by the Rules of Practice following, or reduce the Value of a Millree into its loweſt Denomination, and reduce the Product of the Millrees thereby, into Pounds.

Example 9.] In 758 Gilders 18 Stivers, how many pounds Sterling at the Rate of 33 *s.* 10 *d.* Flemiſh *per* pound Sterling?

Rule.] Reduce the Gilders and Stivers into Stivers: Then reduce the Flemiſh Shillings and Pence into Stivers, by multiplying by 6 the Stivers in a Shilling Flemiſh, and adding 5 for the 10 pence (there being 2 pence Flemiſh in 1 Stiver) and then divide as in the Work following.

Note, That if the Pence in the Exchange had been an odd Number, (as if the 10 had been 9) then multiply 33 by 12, and add the 09, which reduces the 33 *s.* 09 into Flemiſh pence, *viz.* 405; and then you muſt in this Caſe double 15178, and ſo divide 30256 by 405.

Note, This is a uſeful Example to ſuch as Trade to *Holland*, where Accounts are kept in Gilders and Stivers, but the Exchange is in Flemiſh ſhillings and Pence.

See the Operation following.

33 *s.* 10 *d.* Flemiſh
6 Stivers *per* Shill. Flem.

203 Stivers.

	G.	Sti.
	758 :	18
	20	
203)	15178 Stivers.	(74 *l.* Sterling.
	968	
	156 reſts Pounds *Engl.*	
	20	
203)	3120	(15 Shill. Sterl.
	1090	
	75 Shill. rem.	
	12	
203)	900	(4 Pence Sterl.
	88 reſts *d. s.*	
	4	
203)	352	(1 Farthing.
	149	

So the Anſwer is *l.* 74 15 4 $\frac{149}{203}$.

Note, A Table for the Work of the ſeven laſt Examples, you have *Sect.* 4. of *Chap.* 9.

ALL.

The Golden Rule

Is so called from it's extraordinary usefulness, not only in Arithmetical Questions, but in all parts of ye Mathematicks.

It is also called The Rule of Three, because there is alwayes Three Numbers given to find out a Fourth, and it is properly called The Rule of Proportion, because ye first Number beares such Proportion to ye second, as ye third does to the fourth.

The designe of this Rule is to shew how to find a fourth Proportional Number by having three given Numbers, which is deducible from ye 16th Prop: of ye sixth Book of Euclid's Elements. THE RULE IS

Multiply the 2d & 3d Numbers together, & devide ye Product by the first Number; and the Quotient thence ariseing is the 4th Number sought: or

Divide the 2d Number by the 1st, and Multiply the Quotient by the 3d, and the Product is the Number required. For ye 4th Number containes the 3d so often as the 2d containes the 1st and this is called Direct Proportion.

ALL the Difficulty in this Rule, conſiſteth in the right ſtating the three Numbers given: For when you have done that, you have only Multiplication and Diviſion, and the Work is performed: The Rule therefore for ſtating any Queſtion in this kind of Proportion is,

Rule.] Conſider that of the three Numbers given, you have always two of the ſame Denomination: And,

That Number which is of another Denomination, muſt be always put in the ſecond place: And to the Left hand thereof muſt be placed that Number (of the two which are of the ſame Denomination) on which the ſecond has dependance, and the other or third Number muſt be placed next the Right-hand. As ſuppoſing, it were required to know what the Intereſt of 75 Pounds is for a Year at the rate of 8 Pound *per Cent. per Annum*, the Numbers will be ſtated thus:

L. prin.	*L. int.*	*L. prin.*
100.	8 : :	75.

In this Example there are two Numbers that are Principal Money, and one that is Intereſt: therefore the Intereſt (according to the Rule) muſt ſtand in the Middle, or ſecond Place; the Principal on which the Intereſt dependeth, *viz.* 100 (8 *l.* being the Intereſt thereof) muſt ſtand in the firſt Place toward the Left-hand, and the other Principal on which the fourth Number (which is the Number ſought for) dependeth, muſt poſſeſs the firſt Place toward the Right-hand.

By theſe Rules foregoing, you may with Eaſe and Certainty perform any Operation in Direct Proportion, and for your farther Information take the Examples following.

Example 1.] If the Intereſt of 100 *l.* for one Year be 8 *l.* what is the Intereſt of 75 Pound for the ſame time?

L. P.	*L. I.*	*L. P.*
100 :	8 : :	75
		8

100) 600 (6 *l.* for Anſwer.

Example

Example 2.] If 32 Rundlets of Brandy coſt 96 Pounds, what will 4 Rundlets coſt at that rate?

Rund. *l.* *Rund.*
32. 96 :: 4
4

32) 384 (12*l.* Anſwer.
32
64
0 Remains.

Example 3.] If 12 Baggs of Cotton-Wooll coſt 184*l.* what will 17 Baggs coſt?

Baggs. *l.* *Baggs.*
12 : 184 :: 17
17

1288
184

12) 3128 (260*l.*
24
72
8 Pounds remains.
20 Shillings multiply.

12) 160 (13 Shillings.
12
40
4 Shillings remain.
12 Pence multiply.

12) 48 (4 Pence.
48
0 Remains.

l. *s.* *d.*
260 : 13 : 4 Anſwer.

Note,

Note, That (as in the laſt Example) when any thing remains that is reducible to a lower Denomination; after it is ſo reduced, it muſt be divided continually by the firſt Number.

Caſe 2.] When any of the three Numbers given happen to be of divers Denominations.

Rule.] You may reduce them into the loweſt Denomination: And if your firſt Number require to be reduced, your third muſt be reduced likewiſe into the ſame Denomination as the firſt: For the firſt and third Number, before you begin your Operation, muſt be always of one Name or Denomination.

Example 1.] If 17 Hogs-heads of Sugar coſt 320 *l.* 12 *s.* what will 5 of thoſe Hogs-heads be worth?

Hds. *l.* *s.* *Hds.*
17 : 320 : 12 :: 5
20

6412 Shillings } Multiply
5 H-heads }

s. *l.* *s.* *l.* *q.*
17) 32060 (1885 (94 : 5 : 10 : $2\frac{6}{17}$.
20)
150 8
146 0 Remains.
100

15 Shillings remains } Multiply
12 Pence in a ſhilling }

30
15

17) 180 (10 Pence

10 Pence remains } Multiply
4 Farthings }

17) 40 (2 Farthings.

6 Farthings remains to be divided by 17.

Note

Note, That when you have multiplied the 2d and 3d Numbers together, and divided the Product by the 1ſt, the Quotient is of the ſame Denomination, as the 2d Number is; after you have reduced it (as in the laſt Example) into its loweſt Denomination given.

Example 2.] If 4 *C.* 1 *Q.* 24 *lb.* of Sugar coſt 14 *l.* what will 18 *C.* coſt?

C.	*Q.*	*lb.*	*l.*	*C.*
4 :	1 :	24.	14 : :	18.
4				18
42				18
45				18

500 *lb.* of Sugar — 2016 *lb.* of Sugar, 14 *l.* Sterling } Multiply

8064
2016

l. s. d. q.

5|00) 282|24 (56 : 8 : 11 : 2. Anſwer.

32

224 Pound remains, 20 Shillings in 1 *l.* } Multiply

5|00) 44|80 (8 Shillings.

480 Shillings rem. 12 Pence } Multiply

96
48

5|00) 57|60 (11 Pence.

7

260 Pence rem. 4 Farthings } Multiply

5|00) 10|40 (2 Qrs.

40 Farthings remains to be divided by 500.

Note,

Note farther, that what Farthings remain to be divided by the common Diviſor (as in the laſt Example) becauſe you can reduce them into no lower Denomination, you may place them over your Diviſor, as Fractions of a Farthing, which ſhall be explained when we come to vulgar Fractions, *&c.*

Caſe 3.] When the firſt Number of the three given, is but an Unit, the Operation is performed by Multiplication only.

Example 1.] If I give 15 Shillings for a Pound of Thread, what will 250 *lb.* coſt me at that Rate?

lb.	*s.*	*lb.*
1 :	15 : :	250
		15
		125
		25

	l.	*s.*
3750 Shillings Anſwer, or	187 :	10

Example 2.] At 14*l.* 10*s.* 6*d. per* Bagg of Hopps, what coſt 55 Baggs?

Bag.	*l.*	*s.*	*d.*	*Baggs.*
1 :	14 :	10 :	6 : :	55
	20			
	290 Shillings			
	12			
	3486 Pence			} Multiply
	55 the 3 d. Numb.			}
	17430			
	17430			
191730 Pence Anſwer, or		798 :	17 :	6

Caſe 4.] When the third Number of the three given (or that toward the Right-hand) is a Unit; ſuch Operation is performed by Diviſion only, if the Number need no reducing.

Example 1.] If 40 Pieces of broad Cloth coſt 590 *l.* what will one Piece coſt?

Pieces. *l.* *Piece.*
40 : 590 : : 1
40) 590 14½ *l.* or 14 *l.* 15 *s.* Anſwer.

19

3 Pounds remains.

Example 2.] If 14 Hogs-heads of Tobacco, poize Nett 9285 *lb.* coſt 619 *l.* 10 *s.* what will one pound coſt at that Rate?

lb. *l.* *s.* *lb.* *s.* *d.* *q.*
9285 : 619 ; 10 : : 1. Anſw. 1 : 4 : $0\frac{480}{9285}$
20

9285) 12390 *s.* (1 Shilling.

3105 Shillings rem.
12

9285) 37260 *d.* (4 Pence.

120 Pence remains.
4

480 Farthings rem. to divide by 9285.

§. 2. *The Single Rule of Indirect Proportion.*

Whereas in the former Section of Direct Proportion, the fourth Number was always porportionably greater than the Third, as the Second was greater than the Firſt: in this kind of proportion, on the contrary, the greater the third Number is, the leſs is the Fourth, and the leſs the Third is, the greater is the Fourth; and it is therefore called Indirect or Reverſe Proportion.

And whereas in the laſt Section the Product of the Firſt and Fourth is equal to that of the Second and Third; in the proportion I am now treating of, the Product of the Third and Fourth is equal to that of the firſt and ſecond Numbers; which may ſerve as a proof for both.

The

The Method of ſtating any Queſtion in this Proportion, is the ſame with Direct; but to find the Number required, this is the *Rule.*] Multiply the firſt and ſecond Numbers toward the Left-hand together, and divide the Product by the Third, and the Quotient ariſing is the Anſwer.

A Rule to know whether a Queſtion propoſed be to be anſwered by the Rule of Proportion, Direct or Indirect.

Having ſtated the three Numbers given as is formerly directed, calling the middle Number the mean, and the two outmoſt Numbers, the extreams: Conſider from the Nature of the Queſtion, whether the third Number requires more or leſs than the ſecond Number; if it requires more, the leſſer Extream is to be your Diviſor; but if the Third requires leſs, the greater Extream is your Diviſor: Now ſo often as this leſſer, and the greater Extream happeneth to be the third Number, or that next the Right-hand, ſo often is your Proportion Indirect: but when they are the firſt Number, the Proportion is Direct: an Example or two will make it plain.

Example 1.] If a Board be 9 Inches broad, how much in length will make a ſquare Foot? Say, if 12 Inches broad require 12 in length, to make a ſquare Foot, what length will 9 Inches broad require? It will require more length, becauſe there is leſs breadth. See the Work.

In. br. *long.* *In. br.*
12 : 12 : 9
12

9) 144 (16 Inches in length for Anſ.
54
0

Example 2.] How many Yards of Silk 3 Quarters broad, will line 9 Yards of broad Cloth, that is 1 and a half Yards broad?

Say, If 6 Quarters wide or broad require 9 Yards in length, what will 3 Quarters broad require in length?

Qrs. br. *Yar. long.* *Qrs. br.*
6 : 9 : 3
6

3) 54 (18 Yards in length for Anſwer.
24

Example 3.] If when the Price of a Buſhel of Wheat is 6 *s.* 3 *d.* the penny Loaf weigheth 9 ℥; what muſt the penny Loaf weigh, when the price of a Buſhel of the ſame Wheat is 4 *s.* 6 *d.*? The Queſtion is thus ſtated,

s.	*d.*	℥.	*s.*	*d.*
6:	3:	9:	4:	6
12			12	
75 Pence		54 Pence your Diviſor.		

9

54) 675 (12 ℥.

135

27 ℥ Remains } Multiply
20 Penny-weight }

54) 540 (10 Penny-weight.

0 Remains.

	lb.	℥.	*p.w.*
Anſwer	1:	00:	10

§. 3. *The Double Rule of Direct Proportion.*

In this Kind of Proportion there are 5 Numbers given to find a ſixth, which ſixth will bear ſuch proportion to the Product made of the fourth and fifth Numbers, as the third Number does to the Product made of the firſt and ſecond Numbers.

The Rule for ſtating the five Numbers given, is:

Make that the third Number from the Left-hand, which is of the ſame Denomination with the Number ſought; then place the two Numbers in the firſt and ſecond place to the Left-hand, which are conjunctive in the Senſe of the Queſtion to the Third, and the other two Numbers in ſuch Order, that the Fourth may be of the ſame Denomination with the firſt, and the Fifth of the ſame with the Second: which done,

Rule.] Divide the Product of the three next the Right-hand, multiplied one in another, by the Product of the two next the Left-hand, and the Quotient is the ſixth Number ſought for.

Example

Example.] If 100*l.* in Twelve Months gain 6*l.* what will 500*l.* gain in Eight Months?

L. prin.	*Month.*	*L. int.*	*L. prin.*	*Month.*
100 :	12 :	6	500 :	8
12			6	
Diviſor — 1200			3000	
			8	
			12,00) 240,00 (20 Pounds Anſwer.	
			00 Remains.	

By the Work you may perceive that 500*l.* will gain 20*l.* in 8 Months, at the Rate of 100*l.* Principal, gaining 6*l.* Intereſt in 12 Months.

This Queſtion, or any other of this Nature, may be reſolved by two ſingle Rules of Proportion, thus: If 100*l.* require 6*l.* what will 500*l.* require? the Anſwer is 30*l.* Then ſay, if 12 Months require 30*l.* what will 8 Months require? the Anſwer (as before) is 20*l.*

§. 4. *The Double Rule of Indirect Proportion.*

The Rule for ſtating your Queſtion.

Place the three firſt Numbers toward the Left-hand in the ſame Order you did in the laſt Section? and for the other Two, place that the Fourth, which is of the ſame Denomination with your Second Number, and conſequently the other next the Right-hand: So will your firſt and laſt, *viz.* that required, be of one Denomination, your ſecond and fourth of another, and your third and fifth of another. And,

The Rule for performing the Operation, is:

Divide the Product of the firſt, multiplied into the ſecond; and that Product in the fifth, by the Product made of the third and fourth, and the Quotient is the Anſwer.

Exam-

Example.] What Principal will raiſe 20 *l.* in Eight Months at *6 per Cent, per Annum* ?

L. prin.	*Month.*	*L. int.*	*Month.*	*L. int.*
100 :	12 :	6 :	8 :	20

12 × 8 = 48 Your Diviſor.

1200 × 20 = 24000

48) 24000 (500 Quotient for Anſwer; which proves the laſt Operation.

0 Remains.

§. 5. *The Reaſon and Demonſtration of the Single Rule of Direct Proportion.*

If 4 Numbers are Geometrically proportional, the Rectangle or Product made of the Means, is equal to that of the two Extreams from *Euclid. lib. 6. prop.* 16. from which I ſhall prove the Method for finding the fourth Proportional.

Example.] Admit 4 is in proportion to 12, as 18 is to a fourth Number unknown; for which put (*u*) they will ſtand thus;

4. 12 :: 18. *u*

1. *i. e.* As 4 is in proportion to 12, ſo is 18 to the unknown Number; then from the fore-mentioned Propoſition,

$$4u = 216$$

2. *i. e.* Four times *u* (which repreſents the unknown Number) the Product of the firſt and fourth is equal to 12 times 18, *viz.* 216, the Product of the two Means: then it neceſſarily follows;

$$u = \frac{216}{4}$$

3. *i. e.* That (*u*) is equal to 216, divided by 4; for if 4 Times (*u*) is equal to 216, then one Time (*u*) muſt be equal to one fourth part of 216: And,

$$\frac{216}{4} = 54$$

4. Since (*u*) or the unknown Number, is equal to one fourth part of 216, and that $\frac{1}{4}$ part of 216 is equal to 54, therefore (*u*) is equal

equal to 54 which is the fourth Number ſought; and if you compare the ſeveral Steps, you will find the fourth Number to be diſcovered after the ſame Method given for finding it, at the beginning of this Chapter, which is by multiplying the ſecond and third Numbers together, and dividing the Product by the Firſt.

Or thus, from this *Axiom.*

That the Fourth Number containeth the Third ſo often as the Second does the Firſt.

Hence $\frac{12}{4} = \frac{u}{18}$ that is $\frac{1}{4}$ of 12 is equal to one 18th of (u).

Now $\frac{12}{4} = 3$ therefore $\frac{u}{18} = 3$.

i. e. Twelve divided by 4, is equal to 3; therefore u divided by 18 muſt be equal to 3.

And if $\frac{u}{18} = 3$, then $3 \times 18 = u$.

i. e. If u divided by 18 is equal to 3, then 3 times 18 muſt be equal to u, and conſequently (u) is equal to 54, for 3 times 18 is 54, as before.

§. 6. *The Demonſtration of the Single Rule of Indirect Proportion.*

By the Definition of this Rule in Section the ſecond foregoing the Product of the firſt and ſecond Numbers, is equal to that of the Third and Fourth: from whence this Demonſtration.

6 : 9 : 3 : u.

Therefore by the Definition.

$6 \times 9 = 3 \times u$, or

$54 = 3u$,

i. e. The Rectangle of the two firſt Numbers 6 by 9, is equal to that of u by 3.

Now if $54 = 3u$, $u = \frac{54}{3}$.

i. e. If 54 is equal to three Times (u), then it follows that one Time (u) is equal to one third part of 54:

$\frac{54}{3} = 18$ Therefore

$u = 18$.

i. e. One third of 54 being 18, therefore u is equal to 18, which was required.

By

By the ſame Rules may the double Rules of Proportion be demonſtrated; but this Book being chiefly deſigned for the practice of young Merchants; my intended brevity in things ſpeculative requireth, that I paſs forward to what is more practically Useful.

§. 7. *The Proof of the Rules of Proportion.*

Every kind of Proportion I have diſcourſed of, may have the Operations proved two Ways.

Caſe 1.] *Single Direct Proportion.*

When four Numbers are in a direct proportion, the Product made of the Firſt and Fourth, is equal to that of the Second and Third; otherwiſe the Work is not rightly performed.

2*dly*. The ſecond way is thus: As the fourth Number is to the Third, ſo is the Second to the Firſt; otherwiſe the Work is not right.

Caſe 2.] *Single Indirect Proportion.*

When four Numbers are in an Indirect Proportion; the Rectangle of the Firſt and Second, is equal to that of the Third and Fourth; otherwiſe there is an Error in the Work.

2*dly*, Thus: As the Firſt to the Third, ſo is the fourth Number to the Second in a Direct proportion; otherwiſe the Operation is not rightly performed.

Caſe 3.] *Double Direct Proportion.*

When a ſixth Number is found in double Direct proportion; the Rectangle of the Firſt, Second and Sixth, is equal to that of the Third, Fourth and Fifth Numbers, if the Work is not Erroneous.

2*dly*, Thus: As the Product of the fourth and fifth Numbers is to the Sixth; ſo is the Product of the Firſt and Second to the Third in a ſingle Direct proportion.

Caſe 4.] *Double Indirect Proportion.*

When five Numbers are given, and a Sixth found in an Indirect or Reverſe proportion, the Rectangle (provided the Work is ſtated by the Rules foregoing in the fourth Section of this Chapter) of the Firſt, Second and Fifth, is equal to that of the Third, Fourth and Sixth Numbers, if the Work is right performed,

2*dly*, Thus: As the fifth, Number is to the Product of the Third and Fourth, ſo is the Sixth to the Product made of the Firſt and Second, by one ſingle Direct proportion.

CHAP.

CHAP. VIII.

Of Fractions.

§. 1. *Notation and Numeration of Vulgar Fractions.*

1. A Fraction is one or more Parts of a Unit or Integer, according as the ſame is divided.

2. Every Fraction conſiſteth of two parts, *viz.* a Numerator and a Denominator.

3. The Denominator is placed (in Writing) below the line which you write in, and ſheweth how many Parts the Integer, or Unit, is divided into.

4. The Numerator of a Fraction is (in Writing) placed above the line, and ſheweth how many of the ſaid parts, expreſſed by the Denominator, are contained in the Fraction: For inſtance:

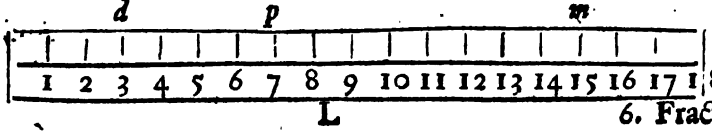
3 Numerator.
4 Denominator.

5. In reading Fractions, the Numerator is firſt mentioned, then the Denominator; as the Fraction above is read, three fourth parts of any thing: *i. e.* The Denominator ſheweth, that the Integer is divided into four parts; and the Numerator, that three of thoſe fourth parts are contained in the Fraction: So by the ſame Reaſon,

$\frac{1}{4}$ is one Fourth Part,
$\frac{2}{4}$ is one half, or two Fourth Parts,
$\frac{2}{3}$ is two Third Parts,
$\frac{5}{6}$ is five Sixth Parts, *&c.* As in the following Table.

One Half, *&c.*	is $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, $\frac{5}{10}$, $\frac{6}{12}$, $\frac{7}{14}$, $\frac{8}{16}$, $\frac{9}{18}$, $\frac{10}{20}$
Two Thirds, *&c.*	is $\frac{2}{3}$, $\frac{4}{6}$, $\frac{6}{9}$, $\frac{8}{12}$, $\frac{10}{15}$, $\frac{12}{18}$, $\frac{14}{21}$, $\frac{16}{24}$, $\frac{18}{27}$, $\frac{20}{30}$
Three Fourths, *&c.*	is $\frac{3}{4}$, $\frac{6}{8}$, $\frac{9}{12}$, $\frac{12}{16}$, $\frac{15}{20}$, $\frac{18}{24}$, $\frac{21}{28}$, $\frac{24}{32}$, $\frac{27}{36}$, $\frac{30}{40}$
Four Fifths, *&c.*	is $\frac{4}{5}$, $\frac{8}{10}$, $\frac{12}{15}$, $\frac{16}{20}$, $\frac{20}{25}$, $\frac{24}{30}$, $\frac{28}{35}$, $\frac{32}{40}$, $\frac{36}{45}$, $\frac{40}{50}$
Five Sixths, *&c.*	is $\frac{5}{6}$, $\frac{10}{12}$, $\frac{15}{18}$, $\frac{20}{24}$, $\frac{25}{30}$, $\frac{30}{36}$, $\frac{35}{42}$, $\frac{40}{48}$, $\frac{45}{54}$, $\frac{50}{60}$
Six Sevenths, *&c.*	is $\frac{6}{7}$, $\frac{12}{14}$, $\frac{18}{21}$, $\frac{24}{28}$, $\frac{30}{35}$, $\frac{36}{42}$, $\frac{42}{49}$, $\frac{48}{56}$, $\frac{54}{63}$, $\frac{60}{70}$
Seven Eighths, *&c.*	is $\frac{7}{8}$, $\frac{14}{16}$, $\frac{21}{24}$, $\frac{28}{32}$, $\frac{35}{40}$, $\frac{42}{48}$, $\frac{49}{56}$, $\frac{56}{64}$, $\frac{63}{72}$, $\frac{70}{80}$
Eight Ninths, *&c.*	is $\frac{8}{9}$, $\frac{16}{18}$, $\frac{24}{27}$, $\frac{32}{36}$, $\frac{40}{45}$, $\frac{48}{54}$, $\frac{56}{63}$, $\frac{64}{72}$, $\frac{72}{81}$, $\frac{80}{90}$
And Nine Tenths	is $\frac{9}{10}$, $\frac{18}{20}$, $\frac{27}{30}$, $\frac{36}{40}$, $\frac{45}{50}$, $\frac{54}{60}$, $\frac{63}{70}$, $\frac{72}{80}$, $\frac{81}{90}$, $\frac{90}{100}$

So in the line below, the whole line *a b* being a Unit, divided into 18 equal Parts: the line *a d* is $\frac{3}{18}$, the line *a p* is $\frac{7}{18}$, the line *a m* is $\frac{15}{18}$, *&c.*



6. Fractions are either proper or improper.

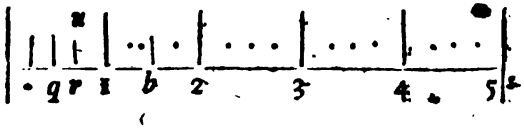
7. A Fraction properly ſo called, or a proper Fraction, is when the Numerator is leſs than the Denominator, as the Fractions foregoing.

8. An improper Fraction is when the Numerator is greater than the Denominator; as $\frac{7}{4}$, $\frac{12}{10}$, *&c.* Again,

9. Fractions are either Simple or Compound.

10. A Simple Fraction is when the Fraction is immediately the Fraction of a Unit or Integer; as thoſe foregoing in the Table, *&c.*

11. A Compound Fraction is a Fraction of a Fraction, as $\frac{1}{2}$ of $\frac{1}{4}$ of a Pound Sterling, which is equal to 2 *s.* 6 *d.* or it is when a Unit is divided into any Number of parts, and each of thoſe parts are again ſubdivided into parts; theſe laſt parts are Compound Fractions, being the Fractions of the Fractions of a Unit. So the whole line (*r s*) being a Unit, the line *r* 1, is $\frac{1}{5}$, *r* 2, is $\frac{2}{5}$, becauſe the Unit is divided into five parts, which five parts being each ſubdivided into 4 parts, as above the line: I ſay, each of theſe laſt Parts are Fractions of a fifth Part; ſo the line *r q* is $\frac{1}{4}$ of $\frac{1}{5}$ of the line *r s*; *r* the line *r r*, is $\frac{1}{4}$ of $\frac{1}{5}$ of it, *&c.*



§. 2. *Reduction of Vulgar Fractions.*

It may ſeem ſtrange to ſome, that Reduction is here taught before Addition, *&c.* but 'tis neceſſary it ſhould be ſo, becauſe Reduction is made uſe of in all the ſubſequent Rules, to fit and prepare Fractions for Addition, Subſtraction, *&c.*

Caſe 1.] When a mixt Number is given to be reduced to an improper Fraction,

Rule.] Multiply the Integers by the Denominator of the Fraction, and to the Product add the Numerator, and place the Summ over the Denominator for a new Fraction.

Example.] Reduce 12 $\frac{1}{4}$ to an improper Fraction: See the Marginal Operation,

12 $\frac{1}{4}$

Anſ. $\frac{49}{4}$

The

The Reason of this Rule.

If the Numerator and Denominator of a Fraction be alike, the Value thereof must be a Unit; so that if you assign a Denominator to any whole Number that shall be reduced to an improper Fraction, your Numerator must be the Product of the whole Number by that Denominator. Thus 1 being reduced to such Fraction, whose Denominator is 2; 2 times 1 is the Numerator, and 2 the Denominator, which is $\frac{2}{2}$ (or 1;) Because, according to the Definition in the 5th Step of the last Section, the Unit is divided into two parts, and there are two of those parts in the Fraction; and as many Units as there are in the Integral part, so many times the Denominator must the Numerator be; because 1 is $\frac{2}{2}$, 2 is $\frac{4}{2}$, *&c.* which Numerator, made of the Integral part of the mixt Number, must be added to the Numerator of the Fractional part, for the Reason mentioned in Addition of Vulgar Fractions.

Case 2.] When an Improper Fraction is given to be reduced to a whole or mixt Number.

Rule.] Divide the Numerator of the Fraction by the Denominator, and the Quotient is a whole Number; and if any thing remain, it must be placed over the Divisor.

Example.] Reduce $\frac{51}{4}$ to a whole or mixt Number.

4) 51 (12$\frac{3}{4}$ Answer, which proves the last Case

11

3 Remains.

The Reason of this Rule, is,

That so often as the Denominator can be had in the Numerator, so many Units doth the Fraction contain, for $\frac{1}{1}$ is 1, $\frac{4}{2}$ is 2, $\frac{6}{2}$ is 3, so that $\frac{7}{2}$ must be $3\frac{1}{2}$, because 2 can be had 3 times in 7, and 1 remains, which must be $\frac{1}{2}$, because 1 is half of 2, and $\frac{2}{2}$, as I said before, is a Unit or One.

Case 3.] When Fractions have different Denominators, and are to be reduced to a common Denominator.

Rule.] Multiply the Numerator of each Fraction singly, into all the Denominators of the Fractions given, excepting its own, and the Product is a new Numerator; and if you multiply all the Denominators one in another, the Product is a common Denominator.

Example.] Reduce $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{5}{7}$ to a common Denominator.

		Thirdly,	
2	The firſt Numerator.	5 The Numer. of the 3d	Mult.
4	The ſecond Denominator.	4 The Denom. of the 2d	
8	Product.	20 The Product.	
7	The third Denom.	3 The Denom. of the 1ſt	Mult.
56	The firſt new Numerator.	60 The 3d. new Numerator.	
		Laſtly,	
3	The Numerator of the 2d.	3	Multip.
3	The Denominat. of the 1ſt.	4	
9	The Product	12	Multip.
7	The Denom. of the 3d.	7	
63	The 2d. new Numerator.	84 The common Denominator.	

Denominators.

Now if you place each new Numerator over the common Denominator, you will have

$\frac{56}{84}$, $\frac{63}{84}$, $\frac{60}{84}$ Equivalent to $\frac{2}{3}$ The firſt Fraction given. $\frac{3}{4}$ The ſecond Fraction. $\frac{5}{7}$ The third Fraction.

The Reaſon of this Rule.

Since the End of this Rule is to make the Denominators alike, and the Numerators proportion'd thereto, as thoſe given are in proportion; If therefore the Denominators are multiply'd by any Numbers that will make the Products alike; and if the reſpective Numerator be multiplied by the ſame Number you multiplied its Denominator, it will produce the ſame thing as this Rule produceth: As if I would reduce $\frac{2}{3}$ and $\frac{3}{4}$ to a common Denominator; if I multiply the Denominator 3, by 8, and the Denominator 4, by 6, the Products will be each 24 for a common Denominator; and if the Numerator 2, be multiplied by the ſaid 8, and the 3 by the 6, the Products will be 16 and 18; ſo the Fractions in a common Denominator are $\frac{16}{24}$ and $\frac{18}{24}$, equal to $\frac{8}{12}$ and $\frac{9}{12}$, which would have been produced by the foregoing Rule. But ſince it would in ſome Caſes be tedious to find out Numbers, that, multiplying the ſeveral Denominators,

nominators, would produce a common Denominator; it is therefore the moſt certain way of performing the ſame, to multiply the Denominators one in another for a common Denominator, as in the Inſtance laſt above, of $\frac{1}{3}$ and $\frac{1}{4}$, the 3 × by the 4, and the 4 by the 3, muſt produce each 12 for a common Denominator; and if you multiply, as before, each Numerator by the Number you multiplied its Denominator, the Products are new Numerators, proportioned to the common Denominator; as the ſeveral Numerators given are proportion'd to their reſpective Denominators.

Caſe 4.] To reduce a Fraction into its loweſt Terms.

Rule.] Take $\frac{2}{2}$, $\frac{3}{3}$, or $\frac{5}{5}$, *&c.* of the Numerator and Denominator.

Example.] Reduce $\frac{56}{84}$ to its loweſt Terms.

Say half of 56 is 28, and $\frac{1}{2}$ of 84 is 42, then $\frac{1}{2}$ 28 is 14, and $\frac{1}{2}$ 42 is 21, and becauſe you cannot take half $\frac{14}{21}$, make trial if you can take $\frac{1}{3}$, *&c.* but ſince you can only take $\frac{1}{7}$ of both; ſay, the Sevens in 14 is 2, and the 7 in 21 is 3, ſo is the given Fraction equivalent to $\frac{2}{3}$, and proves the firſt Fraction in the laſt Caſe to be right: See the Work.

$\frac{56}{84}$ or $\frac{28}{42}$ or $\frac{14}{21}$ or $\frac{2}{3}$

Take $\frac{1}{2}$ — Take $\frac{1}{2}$ — Take $\frac{1}{7}$ — Loweſt Terms.

The Reaſon of the laſt Rule.

By the *Lemma* to the 16th Prop. of the 5th Book of *Euclid. Elem.* Two Numbers, howſoever different, if they are divided by one and the ſame Number, the Quotients will have like proportion one to another, as the Numbers given to be divided have to each other: As $\frac{100}{1000}$ is equal to $\frac{1}{10}$; Becauſe if 100 the Numerator be divided by 100, the Quotient is 1; and 1000 the Denominator, divided by 100, the Quotient is 10; which $\frac{1}{10}$ is equal to $\frac{100}{1000}$; becauſe as 100 is to 1000, ſo is 1 to 10; for $100 \times 10 = 1000 \times 1$.

There are other Rules for the performing the Work of the laſt Caſe as thus: Divide the Denominator by the Numerator, and the laſt Diviſor by the Remainder, and continue to do ſo till nothing remain, and then your laſt Diviſor will divide both the Numerator and Denominator without Remainders, and reduce the Fraction to the loweſt Terms; as in $\frac{112}{168}$, if you divide 168 by 112, there will remain 56, by which if you divide your laſt Diviſor 112, there will (0) remain; therefore the Numerator and Denominator divided by 56, reduceth your Fraction to its loweſt Terms.

Caſe

Caſe 5.] To reduce a compound Fraction to a Simple one, equivalent to the Compound.

Rule.] Multiply all the Numerators one in another, for the Numerator of the Anſwer, and the Denominators one in another, for that of the Anſwer.

Example.] Reduce $\frac{1}{4}$ of $\frac{1}{5}$ of $\frac{1}{12}$ into a ſimple Fraction.

The Product of the Denominators 4, 12, and 20, is 960, and the Product of 1, 1, and 1, is 1; ſo the ſimple Fraction ſought for is $\frac{1}{960}$.

The Reaſon of this laſt Rule.

By the Definition of a compound Fraction in the firſt Section of this Chapter, it is ſhewed, that ſuch a Fraction is nothing but the Subdiviſion of the parts of a Unit; where, for Inſtance, you have a Line ſuppos'd a Unit divided into 5 parts, which repreſents the Denominator of that part of a comp. Fraction always next the Right-hand in reading thereof; each of which 5 parts being again divided into 4 parts, 4 is the Denominator of that part of a comp. Fraction next the Left-hand; each of which parts being $\frac{1}{4}$ of $\frac{1}{5}$ of the Unit (or whole Line) ſhews that there are 20 ſuch parts as that 4th in the Line; which is the Reaſon why we always multiply the Denominators together (as 4 and 5) to reduce the Fraction of a Fraction into the Fraction of a Unit, or a Compound to a Simple, which is all one. And the Reaſon of multiplying the Numerators together, (as in $\frac{3}{4}$ of $\frac{2}{5}$ of the laſt foregoing Line,) is becauſe $\frac{3}{4}$ of $\frac{1}{5}$ (as *r n*) is but one half of $\frac{3}{4}$ of $\frac{2}{5}$, therefore $\frac{3}{4}$ of $\frac{2}{5}$ muſt be 2 times (*r n*) equal to (*r b*) or $\frac{6}{20}$ of the Line (*r s*); for that which before the Subdiviſion of the Line was $\frac{1}{5}$, is (now the whole Line is divided into 20) $\frac{4}{20}$, ſo that $\frac{3}{4}$ of $\frac{4}{20}$ is equal to $\frac{3}{20}$, and conſequently 2 times $\frac{3}{20}$ is $\frac{6}{20}$; which plainly ſhews why the Denominators of compound Fractions are multiplied together for that of a ſimple Fraction, and the Numerators are likewiſe multiplied together for the Numerator of the ſame Fraction.

Caſe 6.] To find the Value of any Fraction, whether the ſame be of Coin, Meaſure, Weight, *&c.*

Rule.] Multiply the Numerator of the Fraction by ſuch a Number of Units of the next inferior Denomination, as is equal to a Unit of the Denomination the Fraction is part of, and divide the Product by the Denominator, ſo the Quotient will Anſwer your Queſtion; but if any thing remain, reduce that to the next lower Denomination, and divide as before.

Exam-

Example.] What is the Value of $\frac{134}{146}$ of a Hundred Weight? See the Operation.

134 Hundred
4 Quarters of a Hundred } Multiply

146) 536 (3 Quarters of a Hundred

98 Quarters remains
28 Pounds in a Quarter } Multiply

784
196

146) 2744 (18 Pounds

1284

116 Pounds remain
16 Ounces in a Pound } Multiply

696
116

146) 1856 (12 Ounces

396

104 Ounces remain
16 Drams in 1 Ounce } Multiply

624
104

146) 1664 (11 Drams

204

58

Q. lb. ʒ. dr.
Answer 03: 18: 12: 11$\frac{58}{146}$

The

The Reaſon of the laſt Rule.

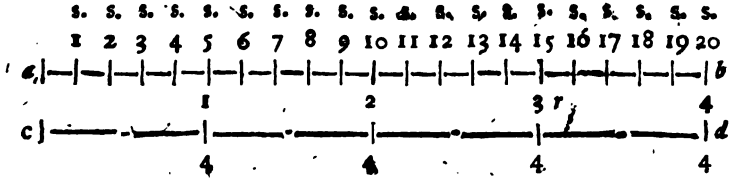
The Reaſon of this Rule is plain: for ſuppoſe a Line, divided into 20 parts, the whole Line, as (*ab*), will repreſent 1 pound, and the 20 parts 20 ſhillings. Now ſuppoſe there is a Fraction given, of which you will find the Value as $\frac{3}{4}$ of a pound Sterling: Draw another right Line of the ſame length with the former, and parallel thereto, as (*cd*), which divide (according to the Definition of a Fraction) into 4 parts, to repreſent your Denominator; and right againſt 3 of thoſe parts in this Line ſhall ſtand 15 in the Line of ſhillings: which ſhews, that $\frac{3}{4}$ of a pound Sterling is 15 *s.* and the ſame may be ſaid of any other Fraction; for as 4 (the whole Line *cd*, or Denominator of the Fraction given) is in proportion to 20 *s.* (the whole Line) (*ab*): ſo is 3 the Numerator or Number of parts in the Fraction given (as in the lower Line) (*cr*) to 15 *s.* the Value of the ſaid Fraction given: And therefore do you multiply and divide as in the laſt Rule directed for

Denom.	s.	Numer.	s.
4.	20	3.	15

3

s.

4) 60 (15 Anſwer.



Caſe 7.] To reduce Fractions of a lower Denomination to a higher.

Rule.] Conſider what Denomination your Fraction is of, and how many of that make a Unit of the next, *&c.* to the Denomination you would have your Fraction reduced to; then work as in the fifth Caſe of this Chapter.

Example.] Reduce $\frac{1}{4}$ of an Ounce Averdupoize into the Fraction of a Hundred Weight.

Ratio.]

Ratio.] 16 Ounces being 1 Pound, $\frac{1}{1}$ of an Ounce, is $\frac{1}{1}$ of $\frac{1}{16}$ of a Pound; then I conſider that 28 Pound is a Quarter of an Hundred, and that 4 Quarters is one Hundred; therefore $\frac{1}{1}$ of an Ounce is, $\frac{1}{1}$ of $\frac{1}{16}$ of $\frac{1}{28}$ of $\frac{1}{4}$ of a Hundred; which by the fifth Caſe foregoing, is $\frac{1}{1792}$ of a Hundred.

Caſe 8.] When you would reduce a Fraction of a higher, to a Fraction of a lower Denomination.

Rule.] Reduce the Numerator of the Fraction into that Denomination you would have your Fraction of, and place it over the Denominator given for a new Fraction.

Example.] Reduce $\frac{1}{1792}$ of an Hundred, into a Fraction of an Ounce.

112 Pounds
16 Ounces } Multiply

672
112

Product 1792 Ounces in the Numerator: So the Anſwer is $\frac{1792}{1792}$; which Fraction, in its loweſt Terms, is $\frac{1}{1}$, and proves the laſt Caſe. See the Work.

$\frac{1792}{1792}$, $\frac{896}{448}$, $\frac{448}{224}$, $\frac{224}{112}$, $\frac{112}{56}$, $\frac{56}{28}$, $\frac{28}{4}$, $\frac{4}{1}$. Proof, or more brief by dividing the firſt by 1792, *&c.* as under *Caſe* 4.

Take Take Take Take Take Take

Ratio.] The Reaſon of this Rule is grounded upon that of the 6th Caſe foregoing, (omitting Diviſion by the Denominator:) For in 1 *C.* or (112 *lb.*) are 1792 Ounces, now ſuppoſing the Denominator 1792; $\frac{1}{1792}$ of a *C.* is juſt $\frac{1792}{1792}$ of an $\overline{3}$, or 1 Ounce: So, by the ſame Reaſon, the Hundred being, as in the Example, divided into 8960 Parts, each Part muſt be leſs than an Ounce; and to know therefore how much leſs, or what part of an Ounce the ſaid $\frac{1792}{8960}$ is, no more than to ſee how many times 1792 is contained in 8960; for how much ſoever 1792, is leſs than 8960, ſo much muſt the Fraction want of being a Unit (as here of 1 $\overline{3}$) by the Reaſon of the Rules to Caſes 1, and 2. So that 1792 being but $\frac{1}{5}$ of 8960, it follows, that $\frac{1792}{8960}$, is but $\frac{1}{5}$ of an Ounce.

§. 3. *Addition.*

Caſe 1.] When a ſimple Fraction is to be added to a Simple.

Rule.] If the Fractions are not in a common Denominator, reduce them to one Denominator, by the third Caſe of the laſt Section; then add the Numerators together, and divide the Summ by one Denominator, and the Quotient is the Summ required; and if any Thing remain, place it over the Diviſor.

Example.] To $\frac{2}{3}$ add $\frac{5}{6}$

The Fractions in a common Denominator are, $\frac{12}{18}$ $\frac{15}{18}$

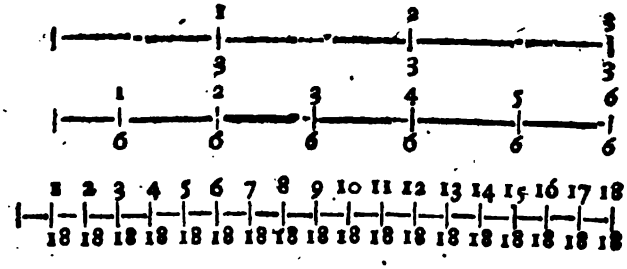
12 The firſt Numerator.
15 The Second.

27 The Summ, which divided by 18, is 1, $\frac{9}{18}$, or $1\frac{1}{2}$ for Anſwer.

The Reaſon of the Rule foregoing.

The Reaſon why you are firſt to reduce your Fractions to a common Denominator, before you can know their Summ Total, is, becauſe the Aggregate of moſt Fractions could otherwiſe never be diſcovered; for a Fraction is more or leſs, according as the Numerator is more or leſs than its Denominator; ſo the Numerators are only to be added. Now ſuppoſe (as in the foregoing Example) that $\frac{2}{3}$ is to be added to $\frac{5}{6}$, in one of theſe Fractions the Unit is divided into 6 Parts, and in the other, into 3 Parts; and if I ſhould add the Numerators together, they make 7; but of which of theſe Parts it is not known: But if the Fractions are reduced to a common Denominator, their Numerators will ſtill retain the ſame proportion to their Denominators; and when the Unit is divided in both Fractions into a like Number of Parts, the Summ of thoſe Parts contained in each Fraction, is the true Aggregate of both Fractions; ſo $\frac{1}{4}$ and $\frac{3}{4}$, is $\frac{4}{4}$, $\frac{7}{12}$ and $\frac{3}{12}$, is $\frac{10}{12}$: Or as in the 3 Lines following, which are of equal length, and ſuppoſed each a Unit; the 1ſt divided into 3, the 2d into 6 Parts, are the Denominators given, and the third Line is divided into 18 Parts, (the Product of 3 and 6,) which is the common Denominator; where right againſt $\frac{2}{3}$ (in the uppermoſt Line),

Line) you have $\frac{12}{18}$ in the loweſt Line; and againſt $\frac{5}{6}$ in the 2d Line you have $\frac{15}{18}$ in the loweſt; which ſhews plainly, that $\frac{2}{3}$ is $\frac{12}{18}$, and $\frac{5}{6}$ is $\frac{15}{18}$: Now the Summ of 12, and 15 Parts of the loweſt Line is $\frac{27}{18}$, or one whole Line and a half; as *per* Example.



Caſe 2.] When a mixt Number is to be added to a Mixt.

Rule.] Work with the Fractional Parts as before, and afterward add the Summ of the Fractions to the Summ of the Integers, and you have your deſire.

Example.] To $1\frac{1}{2}$, add $74\frac{1}{18}$.

The Summ of the Fractions by the laſt Caſe is $1\frac{1}{18}$, which added to 1 and 74, makes $76\frac{1}{18}$.

$$\left.\begin{array}{r} 1\ \frac{1}{18} \\ 1 \\ 74 \end{array}\right\} \text{Add.}$$

$76\ \frac{1}{18}$ The Summ required.

Or you may perform the Work, by reducing the given Numbers to improper Fractions, as in *Caſe* 1. of the laſt Section; and ſo proceeding, as in the firſt Caſe of this Section.

Caſe 3.] When a compound Fraction is to be added to a Simple.

Rule.] Reduce the compound Fraction to a Simple, by the fifth Caſe of the laſt Section; then find the Summ by the firſt Caſe of this Section.

Example.] To $\frac{1}{4}$, add $\frac{3}{4}$ of $\frac{2}{3}$.

The compound Fractions in a Simple are, $\frac{6}{12}$, or $\frac{1}{2}$.

The common Denominator of $\frac{1}{4}$ and $\frac{1}{2}$, is as followeth.

$\frac{4}{48}$, and $\frac{60}{48}$.

The Summ of the Numerators is 102, and of the Fractions $\frac{102}{48}$ for Anſwer.

§. 4. *Subſtraction.*

Caſe 1.] When a ſimple Fraction is to be deducted from a Simple.

Rule.] Reduce the Fractions to a common Denominator, as before; then take the Numerator of the Subtrahend from the other, and place the Remainder over the common Denominator, and you have the Difference ſought.

The Reaſon of this Rule is plain from what was ſaid of Addition, as to the common Denominators, and if the Denominators are alike, the Difference between their Numerators, is the Difference between the Fractions; as may be proved, by adding that Difference to the Fraction ſubſtracted: As, $\frac{1}{4}$ from $\frac{3}{4}$, reſts $\frac{1}{4}$: For $\frac{1}{4}$ and $\frac{1}{4}$ is $\frac{2}{4}$.

Example.] From $\frac{3}{4}$, Take $\frac{5}{12}$. See the Work.

36 The firſt Numerator. 48 The common Denominator.
20 The ſecond Numerator.

16 Difference. Anſwer $\frac{16}{48}$, or $\frac{1}{3}$.

Caſe 2.] When a compound Fraction is to be deducted from a Simple.

Rule.] Reduce the compound Fraction to a Simple, by the fifth Caſe of Section 2. then work as in the laſt Caſe.

Example.] From $\frac{13}{14}$, take $\frac{2}{7}$ of $\frac{8}{9}$.

The compound Fraction in a Simple is $\frac{16}{63}$.

13	16	27
27	14	14
91	64	108
26	16	27
351=The 1ſt Numer.	224=The 2d Numer.	378=The com. *D.*
224 Deduct.		
127 Remains.	So the Anſwer is $\frac{127}{378}$.	

Caſe 3.]

Case 3.] When a ſimple Fraction is to be deducted from a whole Number.

Rule.] Deduct the Numerator from the Denominator, and place the Remainder over the Denominator; then deduct 1 from the Integer, and place the Remainder before the remaining Fraction, and you have the Anſwer.

Example.] From 12, take $\frac{1}{4}$ The Anſwer is $11\frac{3}{4}$

Or thus:

According to the Rules foregoing, place 1 under the 12, and ſo proceed, as in the firſt Caſe of this Section; but the firſt way is the briefer.

Note, That the 1 borrowed from the 12 (in the firſt Method is $\frac{4}{4}$, ſo that if from $\frac{4}{4}$ you take $\frac{1}{4}$, there reſts $\frac{3}{4}$.

§. 5. *Multiplication.*

Case 1.] When you are to multiply a ſimple Fraction by a Simple.

Rule.] Multiply all the Numerators one in another, for the Numerator of the Product, and likewiſe the Denominators for the Denominator of the Product.

Example.] Multiply $\frac{1}{2}$ by $\frac{2}{3}$. Anſwer $\frac{2}{6}$ or $\frac{1}{3}$.

The Reaſon of Multiplication of Fractions.

The Effect of Multiplication of Fractions is different from that of whole Numbers; for the Product is always leſs than the Multiplicand, tho' 'tis always greater in the whole Numbers; the former being the Multiplying of the parts into which a Unit is divided, which muſt needs make the Parts produced leſs than thoſe given; the latter multiplying Units, muſt needs augment the Number; the former decreaſing the parts of a Unit to infinite littleneſs, the latter augmenting the Number of Units *ad Infinitum*. Now the Reaſon of the Rule is, That if any Fraction be multiply'd by 1, it produceth the Fraction given; if by $\frac{1}{2}$, it produceth $\frac{1}{2}$ the Fraction given, *&c.* So that to multiply $\frac{1}{4}$ by $\frac{2}{3}$, produceth $\frac{2}{3}$ of $\frac{1}{4}$ or $\frac{2}{12}$ or $\frac{1}{6}$, which is fully explained in the Reaſon of the Rule to *Caſe* 5. *Sect.* 2.

Case 2.] When you multiply a whole Number by a Fraction.

Rule.] Multiply the Integer by the Numerator of the Fraction, and the Product plac'd over the Denominator is the Anſwer; which differeth

differeth nothing from the laſt Caſe, if you put a Unit under the Integral part, making it like a Fraction.

Example.] Multiply 126 by $\frac{1}{7}$, or $\frac{126}{1}$ by $\frac{1}{7}$.

Anſwer $\frac{126}{7}$ or 54, by Caſe 2. of §. 2.

Caſe 3.] When you multiply a ſimple by a compound Fraction.

Rule.] Reduce the compound Fraction into a Simple, and work as in Caſe 1. of this Section.

Example.] Multiply $\frac{18}{19}$ by $\frac{5}{9}$ of $\frac{1}{2}$.

Anſwer $\frac{450}{342}$ or. $\frac{150}{171}$

§. 6. *Diviſion.*

Caſe 1.] When you would divide a ſimple Fraction by a Simple.

Rule.] Having placed the Dividend and Diviſor, as in the whole Numbers, multiply the Numerator of the Diviſor, into the Denominator of the Dividend, for the Denominator of the Quotient: And the Denominator of the Diviſor, into the Numerator of the Dividend, for the Numerator of the Quotient.

Example.] Divide $\frac{11}{12}$ by $\frac{1}{2}$.

$\frac{1}{2}$) $\frac{11}{12}$ ($\frac{22}{12}$ or $1\frac{5}{6}$.

The Reaſon of this Rule.

1. To make a Fraction greater in Value, is nothing but to multiply (or add to) its Numerator, or to divide or take from its Denominator.

2. To make a Fraction leſs, is to multiply (or add to) its Denominator, or to divide or take from its Numerator.

3. Upon theſe two Axioms, the reaſon of the Rule given for Diviſion of vulgar Fractions, will appear. Suppoſe, for Inſtance, $\frac{3}{14}$ is to be divided by $\frac{1}{4}$; if it were divided by 1, the Quotient would be $\frac{3}{14}$; and therefore, ſince it is to be divided by a quarter of 1, the Quotient muſt be 4 times $\frac{3}{14}$.

4. For both in Fractions and whole Numbers by how much leſs the Value of the Diviſor is, by ſo much more will that of the Quotient be; which is therefore in this Example according to the firſt Axiom $\frac{12}{14}$; and ſhews plainly, why the Numerator of the Dividend

is

is multiplied by the Denominator of the Deviſor to produce the Numerator of the Quotient; whoſe Denominator is always the ſame with the Dividend, ſo often as 1 is the Numerator of the Diviſor.

5. But if the $\frac{3}{14}$ be divided by $\frac{1}{4}$, then the Quotient will (by the 4th Step) be but a 3d of the laſt Quote, *viz.* of $\frac{3}{14}$, becauſe $\frac{1}{4}$ (this Diviſor) is three times as much as the Diviſor $\frac{1}{14}$.

6. The moſt natural way therefore to divide by $\frac{1}{20}$, is to take a 3d of the Numerator of the Quotient ariſing from dividing the ſame Fraction by $\frac{1}{7}$, which 3d Part is $\frac{4}{14}$, according to the ſecond Axiom.

7. But becauſe it would often happen, that the Numerator of the Quotient cannot be divided by the Numerator of the Diviſor without a Remainder, which would be more troubleſome and leſs exact; it is therefore more practicable (ſince it produceth the ſame Thing by the 2d Axiom) to multiply the Denominator of the Dividend by the Number that you ſhould have divided the Numerator of the Quotient by, which in this Inſtance of $\frac{1}{14}$ by $\frac{1}{4}$, is 14 by 3, which produceth 42; ſo the Anſwer is $\frac{1}{42}$ or $\frac{4}{14}$, the ſame as by the 6th Step; and plainly ſhews the Reaſon why the Denominator of the Dividend is multiplied by the Numerator of the Diviſor, to produce the Denominator in the Quotient.

Caſe 2.] When you divide a whole Number by a Fraction.

Rule.] Place a Unit under the whole Number, and work as in the laſt.

Example.] Divide 54 by $\frac{3}{7}$. See the Operation.

$\frac{3}{7}$) $\frac{54}{1}$ ($\frac{378}{3}$ Anſwer, or 126; which proves the ſecond Caſe of the laſt Section.

Caſe 3.] When you divide a ſimple Fraction by a Compound.

Rule.] Reduce the Compound to a ſimple Fraction, and work as in Caſe the firſt.

Example.] Divide $\frac{30}{133}$ by $\frac{5}{7}$ of $\frac{3}{7}$. The compound Fraction is $\frac{15}{49}$.

$\frac{15}{49}$) $\frac{30}{133}$ ($\frac{1470}{2835}$ or $\frac{28}{189}$, which proves *Caſe* 3. of *Sect.* 5.

Having in the two laſt Sections ſhewed the way of multiplying and dividing Fractions, it would be needleſs to ſay any Thing of the Golden Rule, ſince there is nothing in it but what has been already done; obſerving only to multiply and divide by the fractional Way, inſtead of whole Numbers.

§. 7. *Re-*

§. 7. *Of Decimal Fractions.*

A decimal Fraction is only different from a Vulgar in this: That the Denominator of a decimal Fraction is either 10, or ſome Power of 10, *viz.* 100, 1000, 10000, *&c.* ſo that the Denominator is eaſily known without expreſſing it; for in a decimal Fraction there is a Point or Prick toward the Left-hand of the Numerator, which Point alway poſſeſſes the like place, as the firſt Figure toward the Left-hand would if it were to be wrote down: Thus $\frac{1}{10}$ is .1, the Point being in the Tens place, and therefore denotes the Denominator to be 10; $\frac{12}{100}$ is .12; $\frac{125}{1000}$ is .125; $\frac{1964}{10000}$ is .1964; $\frac{17}{1000}$ is .017; $\frac{24}{10000}$ is .0024, *&c.*

The manner to reduce a Vulgar Fraction to a Decimal, is by this Proportion.

Rule.] As the Denominator of the Vulgar Fraction given, is in Proportion to its Numerator:

So is 1000,

To the Numerator of the Decimal, whoſe Denominator is 1000.

Or ſo is 10000 to the Decimal, whoſe Denominator is 10000, *&c.*

Example.] What is $\frac{1}{8}$ in a decimal Fraction: See the Operation.

8 : 1 :: 1000

1

8) 1000 (.125 Anſwer.

20

40

0

But becauſe it ſometimes happens that a Cypher or more is to poſſeſs the 1, 2, *&c.* Places of the Decimal toward the Left-hand, therefore take this

Rule.] As many Cyphers as you have in the third Number of the 3 in Proportion as above: So many places muſt you prick off in the Quotient toward the Right-hand.

Example.]

Example.] How is 9 *d.* expreſſed in the Decimal of a Pound Sterling?

Rule.] Conſider that in a Pound are 240 Pence; therefore 9 *d.* is $\frac{9}{240}$ *l.* in a vulgar Fraction by the ſeventh Caſe of Section the ſecond foregoing, for 9 *d.* is $\frac{9}{12}$ of $\frac{1}{20}$ of a Pound.

Then ſay as in the laſt Example.

240: 9:: 10000

9

l.

240) 90000 (.0375 Anſw.

480

120

0 Rem.

In this Example, becauſe I had 4 Cyphers in the third Number, therefore I muſt prick 4 places off toward the Right-hand the Quotient for Decimals; but becauſe the ſaid Qtotient did but conſiſt of 3 places, therefore I ſupply the fourth to the Left-hand with a Cypher.

Note, That the greater your third Number is, the nearer do you bring your Decimal to Truth, when any thing happens to remain, as in the Example following; but in moſt Caſes where the Decimal is not to be multiplied by a great Number, it is ſufficient that the fourth Number be 1000.

But when you reduce $\frac{1}{4}$, or $\frac{1}{2}$, or $\frac{3}{4}$ to Decimals, or any Number of Shillings to the Decimal of a Pound, it is ſufficient in theſe Caſes if your third Number be 100.

Example 3.] How is 3 Farthings wrought in the Decimal Fraction of a Pound Sterling?

Work, as you ſee in the Margent by the Rules given in the laſt Example, and you will find the Anſwer to be 003125, or 3125 Millionth Part of a Pound.

l. *in a lb.* *Qrs.*

960: 3 :: 1000000

3

l.

960) 3000000 (.003125

120

240

480

0 Remains.

Example 4.] How is 12 Pounds expreſſed in the Decimal of ℔ 112, or one Hundred?

The vulgar Fraction by the laſt Examples is $\frac{12}{112}$ Hundred, therefore the Decimal is .1071, as followeth.

112 : 12 :: 10000
12

112) 120000 (.1071
....

800
160

48 Remains, which is inconſiderable, being leſs than $\frac{1}{1000}$ of a Unit.

Example 5.] How is 13 Shillings in the Decimal of a Pound?

In a vulgar Fraction 13 Shillings is $\frac{13}{20}$ *l.* and in a Decimal .65 *l.* thus,

20. 13 :: 100 .65
13

20) 1300 (.65 Anſwer.
..

100

0 Remains.

Example

Example 6.] What is 14*s.* 6*d.* in the Decimal of a Pound?

In 14*s.* 6*d.* are 174*d.* and the Decimal (by the ſecond Example) is .725*l.* for

240 : 174 :: 1000

174

240) 174000 (.725*l.* Anſwer.

600

1200

0 Remains.

Note, That you may by the Rule following, write down any Number of Shillings in the Decimal of a Pound, without any Proportion, or Operation in the Rule of Three, thus;

Rule.] If your Shillings are an even Number, half of them is the Decimal of a Pound; but if they are odd, put a Cypher to the Right-hand, and then the half is the Decimal of a Pound.

Thus 14*s.* is .7*l.* 16*s.* is .8*l.* *&c.* Likewiſe 13*s.* or 130 is 65*l.* 15*s.* or 150 is .75*l.* *&c.*

You may likewiſe write down any Number of Pence or Farthings in the Decimal of a Pound, without working by the foregoing Rules.

For if you reduce the given Pence into Farthings; and place a Cypher to the Left-hand, you have the Decimal of a Pound required: But if the ſaid Farthings exceed 14, you may add one (for reaſon given in the next Caſe) and another for each 39 Farthings.

Thus 3*d.* is .012*l.* 9*d.* is .037*l.* 11*d.* is .046*l.* *&c.*

Caſe 2.] When it is required to find the Value of any Decimal.

Rule.] Multiply the Decimal given, by ſuch a Number of Units of the next Inferiour Denomination, as make a Unit of that which your Decimal is of, and prick from the Right-hand of the Products ſo many Places as your Decimal conſiſteth of; So thoſe towards the Left-hand of the ſaid Point or Prick are Integers, and thoſe to the Right-hand, are Parts of a Unit of thoſe Integers.

Example 1.] What is the Value of .1071 of a Hundred? See the Operation.

.1071 Hundred
4 Quarters in a Hundred } Multiply

.4284 Quarters of a Hundred
28 Pound } Multiply

34272
8568

l. 11.9952 Parts of a Pound.

Note, That if you conſider the Denominator of your Decimal to be 10000, you will find this way of diſcovering the Value of a Decimal Fraction to differ nothing from that of Vulgar: *Caſe* 6. *Sect.* 2. of this Chapter; becauſe by cutting off 9952, you divide 119952 by the Denominator.

In the laſt Example you ſee, that the Value of .1071 Hundred is 11 Pound; and the Parts being another Pound, wanting leſs than a Hundred Part of a Unit, you may call the Value 12 Pound: which proves the Work in the fourth Caſe of the laſt Section. And,

Note, That as often as the Decimal (as in the Example laſt preceding) is above .75, in the loweſt Denomination, you may call it an Unit.

Example 2.] What is the Value of .747 of a Pound *Troy*? See the Work.

.747 Parts of a Pound
12 Ounces in a Pound } Multiply

1494
747

Ounces 8.964 Parts of an Ounce
20 Penny-weight } Multiply

Penny-weight 19.280 Parts of a Penny-weight
24 Grains } Multiply

1120
560

Grains 6.720 Parts of a Grain. See

So that by the Operation you may perceive the Value of .747 *l.* is 8*s.* 19*p*-*w.* 6 Grains, and about ½ of a Grain.

Example 3.] What is the Value of .9184 of a Pound Sterling?

Anſwer ——— 18*s.* 4*d.* 1*q.*

.9184 Parts of a Pound
20 Shillings in a Pound } Multiply

Shillings 18.3680 Parts of a Shilling
12 Pence in a Shilling } Multiply

.736
368

Pence 4.4160 Parts of a Penny
4 Farthings } Multiply

Farthings 1.6640 Parts of a Farthing.

Note, That the Value of a Decimal of a Pound, as in the laſt Example, may be found by Inſpection, by this

Rule.] Double the Figure ſtanding next the Point in the Decimal given; and if the next Figure toward the Right-hand the aforeſaid Figure is 5 or more, add 1 to the Product: Then what Figure ſtands in the ſecond Place above or under 5, reckon ſo many Tens of Farthings; and what ſtands in the third Place from the Point, is ſo many Farthings; which, as often as they are above 13, make leſs by 1, or above 39, leſs by 2. So .347 *l.* is 6*s.* 11 ¼, *&c.*

The Reaſon of this Rule.

That place in a Decimal Fraction next the prick, is called *Primes*, being ſo many Tenth-parts of a Pound: Now ⅒ of a Pound being 2 Shillings; therefore whatever Figure poſſeſſeth that place, muſt be multiplied by 2.

The Reaſon why you add 1 to the Product, as often as the ſecond Figure from the prick is 5, or more, is becauſe .05 of a Pound is 1 Shilling; for if 1 *l.* be 20 Shillings, then half 1, which is .05, muſt be 1 Shilling.

Laſly, Your reckoning the ſecond and third Places from the prick ſo many Farthings, ſuppoſes 1000 Farthings in a Pound; and there-

being

being but 960, that Rule muſt be ſomething erroneous, but 'tis near enough the Truth for ordinary practice; eſpecially if for the 40 Farthings which the 1000 exceeds 960, you make this allowance of deducting 1 at every 25; for if 1000 is 40 too much, 500 is 20 too much, 250 is 10 too much, 50 Farthings is 2 Farthings too much, and 25 is 1 Farthing too much; ſo that your computation for 13 Farthings is $\frac{1}{4}$ a Farthing too much; and if you deduct a Farthing at all Decimals between 13, and 38 or 39, it may be near enough; for leſs than a Farthing is never received or paid in *Engliſh* Coin. Thus I hope the Rule is made plain, and by it you will find .750 is 7 Tenths of a Pound, or 14 *s.* and .050 *l.* or 50 Farthings made leſs by 2 for the Reaſon aforeſaid, is 48 Farthings, or 1 Shilling more, which makes 15 *s.* alſo .194 *l.* is 1 Tenth of a Pound or 2 Shillings, .050 *l.* or 1 Shilling more, which makes 3 *s.* and 44 Farthings (the 9 being 4 above 5) made leſs by 2, for the Reaſon aforeſaid, is 10$\frac{1}{2}$ *d.* So the Value is 3 *s.* 10$\frac{1}{2}$ *d.*

§. 8. *Addition.*

There is no difference between Addition of Dicimals, and whole Numbers of one Denomination; obſerving only to place the Decimals point under point, as in the Examples, and prick ſo many off the Summ as are in the greateſt Number of places in the Dacimals given.

Example 1.	*Example* 2.	*Example* 3.
46.9765 *l.*	.39462	.789
360.146	.0013	.3642
41.007	.99	.153
72.9	.176	.9761
521.0295 Total.	1.56192 Total.	2.2823 Tot.

The Reaſon of this Rule.

The Reaſon of adding Decimals thus, will appear from that of vulgar Fractions, after reduced to a common Denominator, in which Decimals always are, that to the Decimal of the moſt places, being the common Denominator, which is the Diviſor for the Summ of the Numerators, as in the Rule to Caſe the 1ſt. of Section the 3d. of this Chapter.

§. 9. *Sub-*

§. 9. *Subſtraction of Decimals.*

Place the Numbers as in the laſt, and proceed as in Subſtraction of one Denomination.

Example 1.	*Example* 2.	*Example* 3.
From 39.0049	From 160.99	From 389.0
Take 7.947	Take 94.8462	Take 0.346
Rem. 31.0579	Rem. 66.1438	Rem. 388.654

This Rule is the very ſame with that in vulgar Fractions. § 4. of this Chapter; Decimals always having a common Denominator, as is ſaid before; ſo that the Difference between the Numerators or Numbers given, is the Numerator of the Anſwer, as in vulgar Fractions.

§. 10. *Multiplication of Decimals.*

In this Rule you are to place the Factors, and work as in whole Numbers: But after you have found the Product obſerve this general

Rule.] As many decimal Places as you have in both the Factors, ſo many places muſt you prick off toward the Right-hand of the Product. And if ſo many places happen not to be contained in the ſaid Product; (as it will happen when you multiply two Fractions together that are of little Value) you are to make up the Number by Cyphers toward the Left-hand of the ſaid Product.

The Reaſon of this Rule is plain, it differing nothing from that given for multiplying vulgar Fractions, *Sect.* 5. of this Chapter; for by multiplying the Summs given together, you multiply the Numerators; and by cutting off as many as are in both Decimals given, you multiply the Denominators, and divide that of the Numerators by the Product of the Denominators. Thus to multiply $\frac{1}{2}$ by $\frac{3}{4}$, is the ſame as .75 by .5, and 100 by 10; *viz* $\frac{75}{100}$ by $\frac{5}{10}$, for 5 times 75, is 375; and 10 times 100, is 1000: ſo the Product is $\frac{375}{1000}$ or .375.

Exam-

Example 1.

Multiply 3.467
By 19.01

3467
31203
3467

Prod. 65.90767

Example 2.

Multiply 36492
By .032

72984
109476

Prod. 1167.744

Example 3.

Multiply .13461
By .42

26922
53844

Prod. 5.65362

Example 4.

Multiply .1264
By .247

8848
5056
2528

Prod. .0312208

Example 5.

Multiply .01832
By .007

Prod. .00012824

Example 6.

Multiply .048
By .12

Prod. .00576

§. 11. *Diviſion.*

Diviſion is the ſame with that of whole Numbers; all the difficulty therefore is, to know how many Decimal Places to prick off toward the Right-hand of the Quotient: For which take this

Rule.] Take notice how many Decimal Places you have in the Dividend, and how many in the Diviſor; and as many as the difference is, ſo many Places muſt you prick off to the Right-hand of the Quotient: But if ſo many Places be not in the Quotient, as the ſaid

ſaid Difference: Make up the Number by prefixing Cyphers toward the Left-hand.

Decimal Fractions may alſo be divided as Vulgar, *Sect.* 6. of this Chapter.

Example 1.] Divide 12.43210 by 9.465. See the Operation.

```
9.465) 12.43210 (1.31
       ...
       -----
        29671
       -----
         12760
       -------
Remains 3295
```

Note, That in this and moſt other Examples in Diviſion of Decimals, it will be neceſſary to place Cyphers toward the Right-hand of the Dividend: And *that you may know what Number of Cyphers to put to the Right-hand of any Dividend*, obſerve this

Rule.] Conſider how many Decimal Places you would have in the Quotient, (as 3 is ſufficient, if it is not afterward to be multiplied by any Thing,) and alſo how many Decimal Places you have in your Diviſor; and make ſo many Decimal Places in the Dividend by adding Cyphers, if need require, as in the Example in the Margent, where 3.46 is divided by 1.47: And becauſe I would have 3 Decimals in the Quotient, and there are two in the Diviſor, I muſt make 5 Decimal Places in the Dividend.

```
1.47) 3.46000 (2.353
      ....
      -----
       520
      -----
       790
      -----
        550
      -----
        109 Remains.
```

The Remainder being leſs than 1 Thouſand Part of an Unit, is not material. So much for Diviſion.

The Golden Rule is the ſame with that in whole Numbers, obſerving Multiplication and Diviſion of Decimals, as they are already taught.

Sect: 3.

Practice

A short way of Casting up all Sorts of Merchandises

The TABLE

The even p.ts of a £ Sterl.g

£	d	℄
10	0	½
6	8	⅓
5	0	¼
4	0	⅕
3	4	⅙
2	6	⅛
2	0	1/10
1	8	1/12

The even p.ts of a Shilling

d	£
6	½
4	⅓
3	¼
2	⅙
1 ½	⅛
1	1/12

of a Tun

£	q
10	0 — ½
5	0 — ¼
4	0 — ⅛
2	2 — ⅛
2	0 — 1/10

of a Cwt.

℄	
14	⅛
16	¼

of ½ a Cwt.

℄	
14	¼
8	⅛
7	⅛

of ¼ a Cwt.

℄	
14	½
7	¼
4	1/7
3 ½	1/8

§. 1. *Rules of Practice.*

BEfore you enter upon theſe Rules following, it is neceſſary you ſhould have the foregoing Tables of the *Aliquot* parts of Money and Weight well fixed in your Mind, and likewiſe the Table following of the 9 Digits, multiplied by 12, which will enable you to multiply or divide any Number by 12, as tho' it were but a Digit.

12 Times { 1=12, 2=24, 3=36 } 12 Times { 4=48, 5=60, 6=72 } 12 Times { 7=84, 8=96, 9=108 }

As a neceſſary Introduction to Practice, you are alſo to learn to divide a Number by any of the 9 Digits or 12, without putting down more Figures than the Number to be divided and the Quotient: For the Rules of Practice being of daily uſe with the Merchants ought to be performed with all imaginable Brevity: I ſhall therefore give the following Examples, to inform the Learner how to take $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, *&c.* of any Number, and then proceed to what I chiefly deſign in this Section; namely to ſhew how the Value of any Quantity of Merchandize may be found with moſt Diſpatch.

Admit then you would take half 3164. Say the Two's in 3 is 1 (and the 1 over makes the next 1 Eleven) Two's in 11 is 5, and the 1 over makes the Six 16, Two's in 16 is 8, Two's in 4 is 2; ſo that the half of 3164 is 1582. Alſo by the ſame Rule $\frac{1}{3}$ of 18765 is 6255; $\frac{1}{11}$ of 46723 is 3893, and 7 remains; and $\frac{1}{12}$ of 47632 is 2381, if according to the third Caſe of the 5th Chapter, you cut off the Figure in Units place of the Dividend, and take $\frac{1}{12}$ the reſt: And in theſe Caſes, what remains, is always of the ſame Name with the Dividend.

$\frac{1}{2}$ of 3164
is = 1582

$\frac{1}{3}$ of 18765
is = 6255

$\frac{1}{11}$ of 46723
is = 3893 : 7 Rem.

$\frac{1}{12}$ of 47632
is = 2381 : 12 Rem.

Case 1.] When the Price of a Unit or Integer of a Commodity is 1 Shilling.

Rule.] Take $\frac{1}{20}$ of the given Number for the Answer, because 20 *s.* is 1 Pound.

Example.] What is 46743 Pound of Cotton-wooll worth at 12 *d.* per Pound? See the Operation.

$\frac{1}{20}$ of 46743

1.

is 2337 *l.* 3 *s.* Ans.

Case 2.] When the Price of any Commodity is 2 Shillings.

Rule.] Take $\frac{1}{10}$ of the given Number, as in the third Example of the third Case of Chapter the Fifth. Or cut off Units place, so those Figures to the Left-hand are Pounds, and those to the Right, so many 2 Shillings.

19764 at 2 *s.*

1

1976 *l.* 8 *s.* *Facit.*

The Reason of this Rule

Two Shillings is $\frac{1}{10}$ of a Pound; and to divide a Number by 10, is only to cut off Unit's place of the Dividend and Divisor, by which the Divisor will be but 1, and the Dividend less by the Units place cut off, as $\frac{10}{10}$ is equal to $\frac{1}{1}$, thus $\frac{1\,0}{1\,0}$: Now 1 being a Number which does not divide any other, therefore the Figures remaining of the Dividend to the Left-hand must be the Answer in Pounds; and the Figure cut off in Units place being so many Two-Shillings as the Digit denoteth, must therefore be multiplied by 2 to produce Shillings.

☞ By this Rule you have also the Reason of reducing Shillings into Pounds, by cutting off Units place of the Dividend, and taking $\frac{1}{2}$ the rest for Answer; because 1 *s.* is $\frac{1}{2}$ of 2 *s.* or it is $\frac{1}{2}$ of $\frac{1}{10}$ of a Pound.

Example.] What is the Price of 19764 Yards at 2 *s.*? See the Operation above.

Note, That what remains is always (as was said before) of the same Denomination with the Dividend; so that in the last Example, 4 remaining is 4 two Shillings, or 8 *s.*

Case 3.] When the Price of the Unit is any other even Number of Shillings under 20 *s.* take this

Rule.] Take $\frac{1}{20}$ the Price of the Integer, and by that multiply the Summ given, and the Product is pounds; only when you multiply

the

the firſt Figure toward the Right-hand, double the Exceſs of the Product above Ten or Tens for Shillings, and carry the ſaid Tens to the Pounds, as in the Examples following.

The Reaſon of this Rule

Is plainly deduced from the common Rule of multiplying any Number of Integers by the Value of one Integer, to give the price of all the Integers; and from the Rule for taking $\frac{1}{7}$ a Number of Shillings (except Units place) for Pounds; for it produceth the ſame thing, if I take $\frac{1}{2}$ the Product of 2 Numbers multiplied together, as if I multiply one of the Numbers by $\frac{1}{2}$ the other: Thus if I multiply 640 by 6, $\frac{1}{2}$ the Product is 1920, equal to the Product of 640 by 3, which ſhews the Reaſon of multiplying the Number given by $\frac{1}{2}$ the Price of the Integer, for the Anſwer in Pounds. And as for the Figure in Units place, which is, in this Caſe, always Shillings; the multiplying it by $\frac{1}{2}$ the Price of the Integer, the doubling the Number above Ten or Tens in the Product for Shillings of the Anſwer, *&c.* is the ſame as if you multiply the ſaid Figure in Units place by the whole Price of the Integer, and put the Shillings above or under a Pound in the Shillings place, and carry 1 *l.* for every 20*s.* to the Pounds place, as in the following Example; if you multiply the 3 by 6*s.* it produceth 18; and the other 3 Figures, multiplied by $\frac{1}{2}$ the Price of the Integer, for the Reaſon aforeſaid; produceth the Pounds, *viz.* 1296*l.* 18*s.*

Example 1.] What's the Price of 4323 Yards at 6*s.* *per* Yard?

Work as in the Margent.

4323 Yards at 6*s.*

l. 1296 : 18*s.* Anſw.

Example 2.] What's the Price of 16947 Yards at 8*s.* *per* Yard?

In this Example, ſay, 4 times 7 is 28, twice 8 is 16*s.* and carry 2 Pound; 4 times 4 is 16, and 2 is 18; 8 and carry 1, *&c.*

16947 Yards at 8*s.*

6778*l.* 16*s.* *Facit.*

Example 3.] What's the Price of 7943 Yards of Broad-cloth at 18*s.* *per* Yard?

7943 Yards at 18*s.*

7148*l.* 14*s.* *Facit.*

Note, That from the Rule in this Caſe of an even Number of Shillings, are excepted 10*s.* and 2*s.* For when the Price of the Units

Unit is 2*s.* work as in the ſecond Caſe: and if the Price of it is 10*s.* take half the Integer given, becauſe there are twice 10*s.* in a Pound.

Example 4.] What is the Price of 369 Ells of Holland at 10*s.* *per* Ell?

369 Ells at 10*s.*

184*l.* 10*s.* *Facit.*

Caſe 4.] When the given Price of a Unit of any Wares or Commodity, is any odd Number of Shillings under 20.

Rule.] Work for the next even Number of Shillings, that are leſs than the ſaid odd Number, by the Rules in the laſt Caſe; and for the odd Shilling, work as in the firſt Caſe, and the Summ is the Anſwer in Pounds.

Example 1.] What is the Price of 859 Yards of Muſlin at 17*s.* *per* Yard? See the Margent.

From this laſt Rule is excepted 5*s.* For if the Price of the Integer is 5*s.* take $\frac{1}{4}$ of the given Number, becauſe 5*s.* is $\frac{1}{4}$ of a Pound.

859 Yards at 17*s.*

	l.	*s.*	
Add	687	4	at 16*s.*
	42	19	at 1
	730	3	*Facit.*

Example 2.] What is the Price of 3743 *lb.* of Coffee, at 5*s.* *per* Pound?

See the Work in the Margent; where obſerve, that the 3 remaining is 3 five Shillings, or 15*s.*

3743 *lb.* at 5*s.*

935*l.* 15*s.*

Caſe 5.] When the Price of the Integer is 1*d.* or any other Number of Pence, which are [illegible] *aliquot*, or even part of a Shilling.

Rule.] Divide the Number by the ſaid part, and thoſe Shillings into Pounds by the firſt Caſe.

Example 1.] At 1*d.* *per* Pound, what coſt 9764 *lb*?

$\frac{1}{12}$ of 9764 *lb.* at 1*d.*

is 813*s.* 8*d.* Rem. 1

Facit 40*l.* 13*s.* 8*d.*

Exam-

Example 2.] What coſt 13147 *lb.* of damaged Raiſins, at 2 *d. per* Pound?

Anſw. 109 *l.* 11 *s.* 2 *d.*

Or, Take $\frac{1}{120}$ of the given Number, by cutting off the Cypher and 7, and you perform it at once.

$\frac{1}{2}$ of 13147 *lb.* at 2 *d.*

is 2191 *s.* 2 *d.*

1

Facit 109 *l.* 11 *s.* 2 *d.*

Example 3.] What coſt 87341 Pound of Sugar, at 3 *d. per* Pound?

Anſw. 1091 *l.* 15 *s.* 3 *d.*

Or, Take $\frac{1}{40}$ of the given Number, *viz.* $\frac{1}{2}$ of 2183.

$\frac{3}{4}$ of 87341 *lb.* at 3 *d.*

is 21835 *s.* 3 *d.* Re.

1

Facit 1091 *l.* 15 *s.* 3 *d.*

Example 4.] What coſt 3097 Pound of Raiſins, at 4 *d. per* Pound?

Anſw. 51 *l.* 12 *s.* 4 *d.*

Or, Take $\frac{1}{60}$ of the given Number.

See the Operation of each in the Margent.

$\frac{1}{3}$ of 3097 *lb.* at 4 *d.*

is 1032 *s.* 4 *d.* Rem.

1

Facit 51 *l.* 12 *s.* 4 *d.*

Example 5.] What coſt 14032 Pound of Sugar, at 6 *d. per* Pound?

In this laſt Example of 6 *d.* you need only to take a fourth Part of the given Number, except the Units place, which you cut off, and you have the Anſ. 350 *l.* and the 32 Six-pences that remains are 16 *s.*

$\frac{1}{4}$ of 14032 *lb.* at 6 *d.*

1 1

Makes 350 *l.* 16 *s.*

Caſe 6.] When the Price of a Unit or Integer of any Commodity is any Number of Pence under 12, that are not an even part of a Shilling; as 5 *d.* 7 *d.* 8 *d.* 9 *d.* 10 *d.* or 11 *d.* you are to work as in this and the following Examples.

Example.] What coſt 34071 Pound of Figgs at 5 *d.*?

Rule.] Becauſe 5 *d.* is a fifth part of half a Crown, take $\frac{1}{5}$ and then $\frac{1}{5}$ of the Quotient for Pounds, as followeth:

$\frac{1}{5}$ 34071 *lb.* at 5 *d.*

$\frac{1}{5}$ 5678: 15 *d.* Remains.

Facit 709: 16: 3

Exam-

Example 2.] When the Price of the Unit of any thing is 7 *d.*

Rule.] Take firſt $\frac{1}{12}$ of the given Number, becauſe 80 Threepences make 1 *l.* then take $\frac{1}{20}$ of the given Number, (becauſe 60 Groats makes a Pound Sterling,) and add to the $\frac{1}{20}$ and the Summ is the Anſwer in Pounds. See the Work following.

Example.] What coſt 321 Pound of damaged Cotton at 7 *d. per* Pound?

$\frac{1}{12}$ of 321 *lb.* at 7 *d.*

1 1

Add { is 4 *l.* 3 *d.* Remains.
and $\frac{1}{20}$ is 5 *l.* 7 *s.* Remains.

1

Facit 9 *l.* 7 *s.* 3 *d.*

Note, That the 1 remaining above the firſt Quotient, is 1 Threepence; and the 21 remaining above the ſecond Quotient, is 21 Fourpences (by the Rules foregoing) or 7 *s.* ſo the Anſwer is 9 *l.* 7 *s.* 3 *d.*

Example 3.] When the given Price of a Unit or Integer is 8 *d.*

Rule.] Take $\frac{1}{12}$ of the given Number, and put it down twice, and the Summ is the Anſwer in Pounds, or $\frac{1}{3}$ of the given Number is the Anſwer at once.

Example.] What coſt 3746 Yards of Ribbon at 8 *d. per* Yard?

$\frac{1}{12}$ of 3746 Yards at 8 *d.*

1 1

Add { is 62 *l.* 8 *s.* 8 *d.*
62 *l.* 8 : 8

Facit 124 *l.* 17 : 4

Example 4.] When the given Price of the Integer is 9 *d.*

Rule.] Take $\frac{1}{20}$ of the given Number, for 6 *d.* and $\frac{1}{2}$ of that Quotient for 3 *d.* and the Summ is the Anſwer in Pounds.

Exam-

Example 4.] What coſt 4052 Buſhels of Coals at 9*d. per* Buſhel? The Operation followeth.

$\frac{1}{40}$ of 4052 at 9*d.*
1 1

is 101 : 6*s.*
$\frac{1}{2}$ of 101*l.* 6*s.* is 50 : 13 } Add

Facit 151*l.* 19

When the given Price of the Unit or Integer is 10*d.*

Rule.] Take $\frac{1}{40}$ for 6*d.* and $\frac{1}{60}$ for 4*d.* of the Number given, and the Summ is the Anſwer in Pounds.

Example 5.] What coſt 3179 Pounds of Hops, at 10*d. per* Pound?

$\frac{1}{40}$ of 3179 at 10*d.*
1 1

is 79*l.* 9*s.* 6*d.*
$\frac{1}{2}$ is 52*l.* 19 : 8 } Add
1

Facit 132*l.* 9 : 2

When the given Price of the Integer is 11*d.*

Rule.] From the given Number (ſuppoſing it Shillings) take $\frac{1}{12}$ thereof, and the Remainder is the Anſwer in Shillings; which bring into Pounds by Caſe the firſt.

Example 6.] What coſt 3470 Pounds of Copper, at 11*d. per* Pound?

$\frac{1}{12}$ of 3470*lb.*
is 289*s.* 2*d.*

Rem. 3180*s.* 10
1

Facit 159*l.* 00 : 10*d.*

Case 7.] When the given Price of a Unit or Integer is Farthings under 4.

Rule.] Take the *Aliquot* Parts of 1 *d.* or 1 *s.* and work for the Shillings as before.

Example 1.] What coſt 19746 Yards of Tape, at 1 Farthing *per* Yard?

In this Example take $\frac{1}{4}$ for Pence, $\frac{1}{12}$ for Shillings, and $\frac{1}{20}$ for Pounds.

$\frac{1}{4}$ of 19746 Yards at 1 Farthing.

$\frac{1}{12}$ 4936 *d.* 2 *q.*

$\frac{1}{20}$ 411 *s.* 4 *d.*

1

Facit 20 *l.* 11 : $4\frac{1}{2}$

Example 2.] What coſt 47390 Yards of Tape, at 2 Farthings *per* Yard?

In this Example take $\frac{1}{2}$ for Pence, and proceed as in the laſt.

$\frac{1}{2}$ 47390 Yards at 2 Farthings.

$\frac{1}{12}$ 23695 *d.*

is 1974 *s.* 7 *d.*

1

Facit 98 *l.* 14 *s.* 7 *d.*

Example 3.] What coſt 41038 of Ditto Yards, at 3 Farthings *per* Yard?

In this Example take $\frac{1}{2}$ for 3 Half-pences, $\frac{1}{4}$ of the 3 Half-pences for Shillings, *&c.*

$\frac{1}{2}$ 41038 Yards at 3 Farthings.

$\frac{1}{2}$ 20519 Three Half-pences.

2564 *s.* 10 $\frac{1}{2}$ *d.*

1

Facit 128 *l.* 4 : 10 $\frac{1}{2}$.

Or take $\frac{1}{12}$ of $\frac{1}{4}$ of the given Number.

Caſe 8.]

Caſe 8.] When the Price of the Integer is Shillings and Pence.

Rule.] Work for the Shillings as is before directed, and alſo for the Pence as before taught, and the Summ is the Anſwer in Pounds.

But if the Pence given be an *Aliquot* part of the Shillings given, you may take ſuch a part of the Quotient for Shillings, and the Summ of the Quotients is the Anſwer. Or if the ſhillings and pence together be an *Aliquot* part of a pound, take ſuch part, and you have the Anſwer at the firſt Operation in pounds.

Example 1.] What coſt 1914 Ells of Lockram, at 1 *s.* 8 *d. per* Ell?

Rule.] Take $\frac{1}{12}$, becauſe 1 *s.* 8 *d.* is $\frac{1}{12}$ of a Pound.

$\frac{1}{12}$ of 1914 Ells at 1 *s.* 8 *d.*

Facit 159 *l.* 10 *s.*

Example 2.] What coſt 2789 Ells of Bagg-Holland at 3 *s.* 4 *d. per* Ell?

Rule.] Take $\frac{1}{6}$, becauſe 6 Three Shillings Four Pences make a Pound.

$\frac{1}{6}$ of 2789 Ells at 3 *s.* 4 *d.*

Facit 464 *l.* 16 *s.* 8 *d.*

Note, That the 5 remaining is 5 Three Shillings 4 Pences.

Example 3.] What coſt 978 Groſs of Buttons at 6 *s.* 8 *d. per* Groſs?

Rule.] Take $\frac{1}{3}$, becauſe 6 *s.* 8 *d.* is $\frac{1}{3}$ of a Pound.

$\frac{1}{3}$ of 978 at 6 *s.* 8 *d.*

Facit 326 *l.*

Example 4.] What coſt 796 Ells of Dowlaſs, at 3 *s.* 10 *d.* *per* Ell?

Rule.] Take $\frac{1}{2}$, as in the ſecond Example, for 3 *s.* 4 *d.* and $\frac{1}{4\frac{1}{2}}$ for the 6 *d.* and the Summ of the Quotients is the Anſwer as followeth.

$\frac{1}{2}$ of 796 Ells at 3 *s.* 10 *d.*

1

is 132 *l.* 13 *s.* 4 *d.* at 3 *s.* 4 *d.*
$\frac{1}{4\frac{1}{2}}$ is 19 *l.* 18 : 0 at 6 *d.*

Facit 152 *l.* 11 *s.* 4 *d.* for Anſwer.

Example 5.] At 17 *s.* 4 *d.* *per* Yard, what coſt 394 Yards of Broad Cloth?

Rule.] Take for 17 *s.* as is before taught, and $\frac{1}{6}$ of the given Number for the 4 *d.*

394 at 17 *s.* 4 *d.*

1

315 *l.* 4 *s.* for 16 *s.*
19 *l.* 14 *s.* for 1 *s.* } Add
$\frac{1}{3}$ of the 19 : 14. is 6 *l.* 11 *s.* 4 *d.* for 4 *d.*

Facit 341 *l.* 9 *s.* 4 *d.*

Or this may be done at twice by working for 14 *s.* and 3 *s.* 4 *d.* as before.

Example 6.] What coſt 1504 Ells of Cambrick at 19 *s.* 9 *d.* *per* Ell?

Rule.] Take for the 19 *s.* as is taught in Shillings *per* Unit, and for the 9 *d.* as is directed in Pence *per* Unit.

1504 Ells at 19 *s.* 9 *d.*

1353 *l.* 12 *s.* at 18 *s.*
75 *l.* 4 at 1 *s.* } Add
37 *l.* 12 at 6 *d.*
18 *l.* 16 at 3 *d.*

1485 *l.* 4 *s.* 00 Summ.

Note,

Note, That in this laſt Example, after you have done with the ſhillings, you may take $\frac{1}{2}$ of 75 *l.* 4 *s.* for the 6 *d.* becauſe 6 *d.* is $\frac{1}{2}$ a ſhilling, and $\frac{1}{2}$ of 37 *l.* 12 *s.* for the 3 *d.* becauſe 3 *d.* is $\frac{1}{2}$ of 6 *d.* which is ſomewhat more brief.

But this is more briefly reſolved by deducting from 1504 one 80th thereof, and the Remainder is the Anſwer.

Example 7.] What coſt 1904 Ends of Dimity at 14 *s.* 10 *d. per* End?

1904 at 14 *s.* 10 *d.*

1332 *l.* 16 *s.* at 14 *s.*
$\frac{1}{40}$ = 47 *l.* 12 : at 6 *d.*
$\frac{1}{80}$ = 31 *l.* 14 : 8 at 4 *d.*
} Add

Facit 1412 *l.* 2 : 8 *d.*

Example 8.] What coſt 1865 Yards of Fuſtian, at 2 *s.* 4 *d. per* Yard?

1865 at 2 *s.* 4 *d.*

186 *l.* 10 *s.* at 2 *s.*
$\frac{1}{6}$ of that is 31 *l.* 1 : 8 *d.* at 4 *d.*
} Add

Facit 217 *l.* 11 *s.* 8 *d.*

Caſe 9.] When the given Price of the Integer is Pence under 12, and Farthings under 4.

Rule.] Work for the Pence as is before taught; and if the Farthings are an even part of the Pence that you work'd for next before the Farthings, take ſuch part; otherwiſe work for the Farthings, as is taught before at Farthings *per* Unit.

Example 1.] What coſt 3471 Dozen of Buttons, at 3 $\frac{1}{2}$ *d. per* Dozen?

$\frac{1}{12}$ of 3471 at 3 $\frac{1}{2}$ *d.*
1 1

$\frac{1}{2}$ of 43 *l.* 7 *s.* 9 *d.*
is 7 *l.* 4 : 7 $\frac{1}{2}$.
} Add

Facit 50 *l.* 12 : 4 $\frac{1}{2}$.

Example

Example 2.] What coſt 9761 Pounds of Sugar, at 5 *d* ½. *per* Pound?

$\frac{1}{20}$ of 9761 *l.* at 5 ½ *d.*

1 — 1 — —

is 122 *l.* 00 *s.* 3 *d.* at 3 *d.*
$\frac{1}{40}$ is 8 *l.* 6 *s.* 10 *d.* at 2 *d.* } Add
of which ¼ is 10 *l.* 3 *s.* 4 ½ at 1 *q.*

Facit 213 *l.* 10 *s.* 5 ½ *d.*

Example 3.] What coſt 1794 Pounds of Pepper, at 3 ¼ *d.* *per* Pound?

$\frac{1}{20}$ of 1794 at 3 ¼ *d.*

1 1

is 22 *l.* 8 *s.* 6 *d.*
½ of the laſt Quote is 5 *l.* 12 : 1 ½ at 3 *q.* } Add

Facit 28 *l.* 00 : 7 ½.

Caſe 10.] When the Price of the Integer or Unit is Pounds, Shillings, Pence, and Farthings.

Rule.] Multiply the given Number by the Pounds, and to the Product add what the ſame comes to at Shillings, Pence, and Farthings, as is taught before.

Example.] What coſt 276 Hundred, 2 Quarters of Steel at 2 *l.* 3 *s.* 8 ½ *d.* *per* Hundred?

For Anſwer: Firſt multiply the 276 by 2 *l.* then for 3 *s.* 4 *d.* take ¼ of 276; for the 4 *d.* take $\frac{1}{12}$ of it; and for the ½ penny take ½ of the laſt Quotient; and for the half Hundred, take ½ of 2 *l.* 3 *s.* 8 ½ *d.* which is 1 *l.* 1 *s.* 10 ¼ *d.* and the Summ of theſe is the Anſwer. See the Operation.

C. Q.
276 : 2 : At 2 *l.* 3 *s.* 8 ½ *d.*

Add
552 *l.* at 2 *l.*
46 *l.* at : 3 *s.* 4 *d.*
4 *l.* 12 : at 4 *d.* (this is $\frac{1}{12}$ of the 46 *l.*)
0 *l.* 11 : 6 *d.* at 2 *q.* which is ¼ of 4 *l.* 12 *s.*
1 *l.* 1 : 10 ¼ for the half Hundred.

Facit 604 *l.* 5 : 4 ½.

§ 2. *Con-*

§. 2. *Concerning* Tare *and* Trett.

Tare is an Allowance in Merchandize made to the Buyer by the Merchant for the Weight of the Bagg, Cask, Cheſt, Freal, Hogs-head, *&c.* in which any Merchants Goods are put. After this Allowance is deducted from the Groſs weight, (which is the Weight of the Commodity and Cask, Hogs-head, *&c.* together) the remainder is the Weight of the Commodity only, and is called Nett-weight: The Allowances for *Tare* are various, as you ſhall ſee by and by.

Trett is an Allowance made for the Waſte, that may be mixt with the Commodity, as Duſt, Dirt, *&c.* which is always 4 *l.* at 104; but tho' the Merchant alloweth this to the Retailer, yet himſelf is only allowed *Tare* in paying Cuſtom: ſo that he payeth as well for the Duſt as the beſt of the Commodity.

Note, That in ſuch Commodities wherein *Trett* is allowed, the Remainder, after the *Tare* is deducted, is called *Suttle*: out of which *Suttle* the Allowance for *Trett* is made; and, when it is deducted, the Remainder is called *Nett*. But if no Allowance is made for *Trett*, that Weight is called *Nett*, that remaineth after the *Tare* is deducted, as was ſaid before, ſo that the *Tare* is always deducted from the Groſs-weight, and the *Trett* from the *Suttle*: And to ſhew the beſt Method for diſcovering and deducting theſe Allowances, is the Work of this Section, and ſhall be explained in the Caſes following; wherein I ſhall be as plain as I can, becauſe I do not know any where the ſame is done already with that Variety, Brevity and Perſpicuity which is neceſſary.

Caſe 1.] When the Allowance is 14 *l. per Cent.* (as of Almonds, Steel, Hemp,) how to compute the Nett-weight.

This Caſe, as alſo the reſt, may be reſolved ſeveral ways; which after I have given you an Example of, I ſhall pitch upon that which, in my Opinion, is the briefeſt.

Example 1.] What is the Nett-weight of 96 *C.* 2 *Qrs.* 7 *lb.* Groſs, *Tare* at 14 *l. per Cent.* to be deducted?

The firſt way.

Rule.] Reduce the given Weight into Pounds, as in the third Example of *Caſe* 2. §. 2. *Chap.* 6. as followeth: then ſay, as 112 *lb.* to 14 its *Tare*, ſo is the Pounds given to the Anſwer in *Tare*; which

which deduct from the Pounds Groſs, and the Remainder is Pounds Nett.

C.	*Qrs.*	*lb.*
9 :	2 :	7
9		
93		
96		

1071 *l.* Groſs.

1071 *lb.* Groſs.
Deduct 133 $\frac{1}{4}$ *lb.* Tare.

Anſwer 937 $\frac{1}{4}$ *lb.* Nett.

2dly. Say,
Groſs Tare, Groſs
112 ; 14 : 1071
14

4284
1071

14994

112) 14994 (133 *lb.* Tare.
...
379
434

98 Remains, or $\frac{98}{112}$, or $\frac{1}{4}$ of 1 *lb.* and better.

A ſecond Way of working the laſt Queſtion.

Reduce the 2 Quarters 7 Pounds into the Decimals of a Hundred, as is taught in Reduction of Decimals; then deduct 14 the *Tare* from 112, and the Remainder is 98: So muſt you multiply 9.563 *C.* by 98, and the Product is Nett-pounds required.

9.563 *C.* Groſs.
98 Nett-pounds in 1 *C.* } Multiply

76504
86067

lb. 937.174 = The Anſwer Decimally.

A third Way of finding the Tare *and* Nett-weight *by Practice.*

Becauſe 14 *lb.* is $\frac{1}{8}$ Part of 112: take $\frac{1}{8}$ of the given Number, and you have the *Tare* ſought.

$\frac{1}{8}$ of	9 *C.*	2 *Qrs.*	7 *lb.* Groſs.
is	1 :	0 :	21 $\frac{1}{2}$ *lb.* Tare, deduct.
Remains	8 :	1 :	13 $\frac{1}{4}$ Nett.

A fourth

A fourth Way of finding the Tare.

Multiply the Hundreds by the *Tare* to be allowed for 1 Hundred; and for the Quarters and Pounds in the Groſs-weight, take a proportionable Part of the ſaid Allowance for one Hundred, and the Summ is the *Tare* in Pounds; which you may either reduce into Hundreds, and deduct it from the Groſs weight, or the Groſs-weight into Pounds, and then deduct the *Tare* in Pounds.

So that to find what *Tare* is to be allowed for *C.* *Q.* *lb.* 9 : 2 : 7 Groſs, *Tare*, at 14 Pounds *per* 112 :

Multiply { *C.* 9 : *Q.* 2 : *lb.* 7 Groſs. / 14

For 9 *C.* you have 126 *lb.*
For 2 Quarters = 7 *lb.*
For 7 Pound = 0¾ *lb.*
} *Tare.*

Tot. *Tare* = 133¾ *lb.* or *C.* 1 : *Q.* 00 : *lb.* 21¾ *lb.* The Anſwer as before.

This Method (eſpecially where the *Tare* to be allowed *per Cent.* is not an even part of 112 *lb.*) is the moſt eaſie and expeditious; but the Learner may make uſe either of the 3d or 4th way, as he beſt liketh; by both which Methods, the following Caſes are wrought.

Caſe 2.] When the Allowance for Tare is 4 *l. per* Hundred weight, as for Cotton-wool, Hops, Feathers, Lambs-wool, or Poliſh.

Rule.] Take ⅐ of ¼ of the Groſs-weight, and you have the Tare; which deduct from the Groſs, and the Remainer is the weight requir'd.

Example.] What is the Nett-weight of four Sacks of Cotton-wool, whoſe Number and Weight is as followeth.

	C.	*Q.*	*lb.*
N° 31	1	3	19
35	2	2	07
36	3	0	14
40	2	1	12

By the 4th way { *C.* 9 *Q.* 3 *lb.* 24 / Multiply 4

Tare { *lb.* 36, for 9 *C.* / *lb.* 3, for 3 *qrs.* / *lb.* 0¾, for 24 *lb.* } Groſs

Total Groſs 9 : 3 : 24 at 4 *l. per Cent.* *lb.* 39¾, Total Tare.

2 : 1 : 27 is ¼, of which take ⅐.

is 0 : 1 : 11¾ The Tare, deduct from the Groſs.

Remains 9 : 2 : 12¼ Nett.

Note, That what Hundreds remain in dividing, muſt be reduced into Quarters of Hundreds; and what Quarters remain, muſt be reduced into Pounds, and then divided; ſo in taking $\frac{1}{4}$ of 9 Hundred (in the Example toward the Left-hand) one Hundred remains or four Quarters; which added to the 3 is 7 Quarters; $\frac{1}{4}$ of 9 Hundred is one Quarter, and three remains; or 84 Pounds, and the 24 is 108 Pounds, $\frac{1}{4}$ of which is 27, *&c.*

Caſe 3.] When the Tare to be allowed is 6 *l. per* Hundredweight.

Rule.] Take $\frac{1}{4}$ of the given Number, and $\frac{1}{7}$ of that fourth for four pounds Tare: then to the laſt Quotient add half it ſelf, and the Summ is the Tare required.

Or, as in the 4th Method: Multiply the Hundreds by 6; and ſo proceed as in the 4th Way of finding the Tare is directed, and in the Example.

Example.] What is the Tare of 6 Cask of Latten or Iron-wire, at 6 *l. per* Hundred Tare?

By the 4th Way (by which this is beſt performed.)

	C.	*Qr.*	*lb.*
The Groſs-weight being	16	00	14
	6		
	96		is the Tare of 16 *C.*
	0	$\frac{3}{4}$	of 14 *lb.* ($\frac{3}{4}$ *lb.* being $\frac{1}{4}$ of 6 *lb.* as 14 *lb.* is $\frac{1}{4}$ of 112 *lb.*)
Total Tare=	96	$\frac{3}{4}$	*lb.*

Caſe 4.] When the Allowance for *Tare* is 7 *l. per Cent.*

Rule.] Take $\frac{1}{8}$ of 1 Eighth of the given Number for Tare.

Example.] What is the Tare of 9 *C.* 3 *Qrs.* 16 *lb.* at 7 *l. per* Hundred Weight. See the Work following.

C.	*Qrs.*	*lb.*	
9	3	16	at 7 *l.* Tare
1	0	26	is $\frac{1}{8}$.
Deduct 0	2	13	is $\frac{1}{7}$ of $\frac{1}{8}$ being the Tare
Remainder 9	1	03	Nett.

Or by the 4th Method.

C.	*Q.*	*lb.*	
9	3	16	at 7 *l.*
7			
For 9 *C.* = 63 *l.*			
For 3 *qr.* = 5 $\frac{1}{4}$ *l.*			Tare.
For 16 *l.* = 0 $\frac{1}{4}$ *l.*			
69 *l.*			Total Tare.

Caſe

Caſe 5.] When the Allowance for Tare is 8 *l. per* Hundred-weight, as for Copper and Brimſtone.

Rule.] Take $\frac{1}{7}$ of a Fourth of a given Number, and put it down twice, and the Summ is Tare.

Example.] What is the Tare of three Fats of Copper: *Viz.*

	C.	*Qr.*	*lb.*
N° 7,	19	1	06
9,	21	3	04
13,	23	2	14
C.	64	2	24 = Total Groſs
C.	16	0	20 = $\frac{1}{4}$ of the Groſs
	2	1	06 $\frac{1}{2}$ = $\frac{1}{7}$ of the 4th
	2	1	06 $\frac{1}{2}$ = $\frac{1}{7}$ of the 4th
	4	2	13 $\frac{1}{2}$ Total Tare.

Or by the 4th Way.

C. 64 : 2 : 24 Groſs.

8

512 *lb.* Tare of 64 *C.*
4 *lb.* Tare of the 2 *qrs.*
1 $\frac{1}{2}$ *lb.* Tare of the 24 *lb.*

Add

517 $\frac{1}{2}$ Tare of Total Groſs, or *C.* 4 : 2 : 13 $\frac{1}{2}$, as before.

Caſe 6.] When the Allowance for Tare is 10 Pounds *per. Cent.*

Rule.] From $\frac{1}{7}$ of the Groſs-weight, take $\frac{1}{7}$ of $\frac{1}{4}$ of the ſaid Weight, and the Remainder is Tare.

But this Queſtion is beſt performed by the 4th Way.

Example.] What is the Allowance for 14 *C.* 1 *Qr.* 10 *lb.* of Copperas, at 10 Pounds *per* Hundred Tare?

C.	*Qr.*	*lb.*
14	1 :	10
10		

lb. 140 Tare of 14 *C.*
lb. 2 $\frac{1}{2}$, of 1 *qr.*
lb. 0 $\frac{1}{4}$ of 10 *lb.*

143 $\frac{1}{4}$ = Tare required.

Caſe 7.] When the Allowance for Tare is 12 *l. per Cent.* as of Alum, Salt-petre, and Tallow.

Rule.] From $\frac{1}{7}$ of the Groſs-weight, take $\frac{1}{7}$ of the Eighth, and the Remainder is Tare.

Example.] What is the Tare of 15 *C.* 3 *Q.* 16 *lb.* of Salt-petre at 12 *l. per Cent.*

	C.	*Q.*	*lb.*
Groſs	15	3	16 at 12 *l. per Cent.*
	1	3	26 is $\frac{1}{8}$ of the Groſs.
	0	1	04 is $\frac{1}{7}$ of the 8th, which deduct from the $\frac{1}{8}$.
	1	2	22 Tare required, deduct from the Groſs.
Remains	14	0	22 Nett.

Caſe 8.] When the Allowance for Tare is 16 *l. per Cent.*

Rule.] Take $\frac{1}{7}$ of the given Number: (this being done beſt by the 3d way) and you have the Tare.

Example.] What is the Tare of 10 *C.* 2 *Q.* 26 *lb.* of Currans, at 16 *l. per Cent.*

	C.	*Q.*	*lb.*
Groſs	10	2	26 at 16 *lb.* Tare.
$\frac{1}{7}$ =	1	2	3.
Nett =	9	0	23

Thus have I given you Rules for deducting the uſual Tares in moſt Commodities where 112 *lb.* is allowed to the Hundred-weight; which Methods I refer to the Learner, as the beſt, being brief and commendable according to the Rules in Practice among the beſt Merchants, but if the Learner thinks the foregoing Method charges his Memory too much, he may uſe the following Table of the Decimal Parts of 112 *lb.* by which he will work Quarters of Hundreds and Pounds, as tho' they were Hundreds, as ſhall be ſhewn by ſeveral Examples following the Table.

A Table

A TABLE for the ſpeedy finding the Tare; ſhewing what Decimal Part of One Hundred any Number of Quarters and Pounds are.

Qr.	lb.	C.	Qr.	lb.	C.	Qr.	lb.	C.	Q.	lb.	C.
0	1	.0089	1	0	.25	2	0	.5	3	0	.75
	2	.0178		1	.2589		1	.5089		1	.7589
	3	.0267		2	.2678		2	.5188		2	.7679
	4	.0357		3	.2767		3	.5277		3	.7768
	5	.0446		4	.2857		4	.5367		4	.7857
	6	.0535		5	.2946		5	.5456		5	.7946
	7	.0624		6	.3035		6	.5545		6	.8036
	8	.0714		7	.3124		7	.5634		7	.8125
	9	.0803		8	.3214		8	.5724		8	.8214
	10	.0892		9	.3303		9	.5813		9	.8303
	11	.0982		10	.3392		10	.5902		10	.8393
	12	.1071		11	.3481		11	.5991		11	.8482
	13	.1161		12	.3570		12	.6081		12	.8571
	14	.1250		13	.3660		13	.6170		13	.8660
	15	.1339		14	.3749		14	.6259		14	.8750
	16	.1429		15	.3838		15	.6348		15	.8839
	17	.1518		16	.3927		16	.6438		16	.8928
	18	.1607		17	.4017		17	.6527		17	.9017
	19	.1697		18	.4106		18	.6616		18	.9107
	20	.1786		19	.4195		19	.6705		19	.9196
	21	.1875		20	.4284		20	.6795		20	.9285
	22	.1964		21	.4374		21	.6884		21	.9374
	23	.2054		22	.4463		22	.6973		22	.9464
	24	.2143		23	.4552		23	.7062		23	.9553
	25	.2232		24	.4641		24	.7152		24	.9642
	26	.2321		25	.4731		25	.7241		25	.9731
	27	.2411		26	.4820		26	.7330		26	.9821
				27	.4919		27	.7419		27	.991

The Calculation of this Table.

This is no more than what is taught in Example 4. of Sect. 7. of Chap. 8. of this Book.

Example. Admit I would know what Decimal part of a Hundred 2 Quarters 27 Pound is.

In

In 2 quarters 27 pounds are 83 pounds, or $\frac{83}{112}$ *C.* which by the Rule in the ſaid ſeventh Section of Chap. 8. Example 1. is thus reduced to a Decimal.

112) 83 :: 10000
83

C.

112) 830000 (.7410 Anſwer.
....

460
120
80

By the Work you may ſee that the 2 quarters 27 pounds is .7410 *C.* and is the Tabular Number, anſwering 2 quarters 27 pounds; the Uſe of the Table in allowance for Tare is as followeth.

The Uſe of the Table foregoing.

Example 1.] What is the Nett-weight of the four Sacks of Cotton mentioned in Caſe 2: of this Section, the Groſs-weight of which is 9 hundred, 3 quarters, 24 pounds.

Rule.] Take the Decimal of 3 quarters 24 pounds out of the Table, which is .9642: Then deduct four pounds Tare from 112, and the Remainder is 108 Nett-pounds in 112 Groſs, as we ſhewed before: Therefore multiply 9.9642 *C.* by 108, and the Product is Nett-pounds, and parts of a pound.

9.9642 *C.*
108

7.97136
9.9642

1076.1336 Nett-pounds for Anſwer; which is the ſame as in the ſaid ſecond Caſe of this Section, as you may prove by reducing that Nett-weight into Pounds.

Example

Example 2.] Let it be required to find the Nett-weight of the 10 Hundred, 2 Quarters, 26 Pounds of Currans mentioned in *Case* 8. foregoing.

In order to perform which, I look in the Decimal Table, what part of 1 Hundred, 2 Quarters and 27 Pounds is, and find it .733; and having deducted the 16 Pounds Tare from 112, the Remainder is 96; wherefore I multiply 10.733 by 96, and the Product is Nett-pounds.

10.733 Hundred
96 Nett-pounds in 1 *C.* } Multiply

64398
96597

1030.368 Nett-pounds which is equal to the pounds contained in the 9 Hundred, 00 Quarters, 23 Pounds, the Nett-weight of the Currans in the said 8th Case.

Case 9.] When the Hundred-weight is 5 Score, how to deduct the Tare at 5 *l. per Cent.*

Rule.] Take $\frac{1}{20}$ of the given Number, and you have the Tare required.

Example 3.] What is the Tare of 5 Baggs of Cotton-Yarn from *Aleppo*, Weight 1099 Pounds at 5 *l. per Cent.*

lb.
$\frac{1}{20}$ of 1099 Grofs.
1

is 54 for Tare.

1045 Nett.

By the various Examples in the Cases foregoing, you may easily know how to make allowance for Tare at any rate *per Cent.* but in many Commodities the allowance for Tare is not reckoned *per Cent.* But so much of the Grofs, called Invoice-Tare, thus.

Case 10.]

Caſe 10.] When the Tare of Raw-ſilk from *Smyrna* or *Cyprus* is to be deducted. The

Rule.] Is (by the Book of Rates) to allow 16 pounds Tare for 3 Hundred weight and upward; from 3 Hundred-weight, down to 200 Weight 14 pounds Tare; and from 200 Weight downwards, is allowed 12 pounds Tare.

Example 1.] What is the Tare of 4 Bails of Raw-ſilk, Weight 1088 pound (Averdupoize?) Anſwer 58 pounds.

		lb.		*lb.*
N°	1 Q.	346,	Tare	16
	3	300,	Tare	16
	4	284,	Tare	14
	8	158,	Tare	12
Total Groſs		1088	Tare	58
		58		

Remains *lb.* 1030 Nett.

Example 2.] Likewiſe in *Virginia* Tobacco, all Hogſheads under three Hundred-weight, allow 70 pounds Tare; from 3 Hundred to 4 Hundred 80 pounds, from 4 Hundred to 5 Hundred 90 pounds, and from 5 Hundred-weight upward 100 pounds Tare.

So in the 6 Hogſheads following, Weight 27 Hundred, 1 Quarter, the Tare is 4 Hundred, 3 Quarters, 8 Pounds.

		C.	*Q.*	*lb.*		*C.*	*Q.*	*lb.*
N°	5	2	3	4,	Tare	0	2	14
	6	3	1	12,	Tare	0	2	24
	8	4	2	00,	Tare	0	3	06
	9	5	1	12,	Tare	0	3	16
	10	5	2	08,	Tare	0	3	16
	12	5	2	20,	Tare	0	3	16
Total Groſs		27	1	00,	Tare	4	3	08
Total Tare		4	3	08,	Deduct			
Reſteth Nett		22	1	20.				

It

It would be needleſs to give any more Examples of the deducting Tare, ſince by knowing the uſual Tare for any Commodity according to the Cuſtom of any Port, the Learner may by the help of the foregoing Rules, be able with Speed and Exactneſs, to make any Allowance deſir'd. I ſhall therefore conclude this Section with one Example of Allowance for Tare and Trett.

Caſe. 11.] When Allowance is requir'd for Tare and Trett.

Rule.] Find what is to be allow'd for Tare according to the Rules foregoing, which having deducted, the Remainder (as was ſaid at the beginning of this Section) is Suttle, which reduce into Pounds and divide by 26 (becauſe that is $\frac{1}{4}$ part of 104,) and the Quotient is what is to be allow'd for Trett, which deduct from the Suttle, and the Remainder is Nett.

Example.] What is the Nett-weight of the Puncheon of Pruens following, Allowance being made of 14 Pounds at 112 for Tare, and four Pounds at 104 for Trett?

C. Q. I.

1 Puncheon at 9 : 2 : 10 Groſs, at 14 Pounds Tare *per Cent.*

$\frac{1}{7}$ is = 1 : 0 : 22 Tare deduct

Remains 8 : 1 : 16 Suttle.

8 :
84
84

940 Pounds Suttle, which divide by 26, and you have
36 Pounds Trett, deduct,

904 Pounds Nett, For Anſwer.

Note, that Trett, and 2 pounds at every 300 Weight for Draught, is uſually allow'd in the Port of *London* for Cinnamon, Cloves, Mace, Tobacco, Cotton-Yarn, Cotton-Wool, and other Things that have Waſte.

§. 3. *Concerning Bartering.*

Merchants are ſaid to barter, when they exchange one Commodity for another; but there is much more difficulty in the Name than the Rule; for that is no other than the Rule of Proportion, which has been taught already, as will appear by the Example following.

Caſe 1.] When two Merchants barter, and each rateth his Goods ſold in Barter, as tho' they were ſold for ready Money.

Rule.] Let one Merchant conſider what the Goods he is minded to barter amounteth to: Then, by the Rule of Proportion, ſee how much of the other Merchant's Commodity the ſaid Amount will buy, and ſo much muſt be given.

Example.] A Merchant has 18 hundred 2 Quarters of Coffee-berries, at 14 Pound 10 Shillings *per Cent.* which he is willing to Barter with another Merchant for Lime-Juice, at 20 pence the Gallon; how much Lime-Juice muſt the ſecond Merchant give the firſt for his Coffee-berries?

The Price of the firſt Merchant's Coffee is thus by Practice.

	C.	*Q.*	*l.*	*s.*
Multiply	18	2	at 14 : 10	*per Cent.*
	14			
	72			
	18			
Add	252		Pounds	at 14 *l.*
	9		*l.*	at 10 *s.*
	7		*l.*	5 *s.* for the half Hundred.
The Value of the Coffee	268		*l.*	5 *s.*

	d.	*Gal.*	*l.*	*s.*
Then ſay	20 :	1 ::	268 :	5,
			20.	
			5365	
			12	
	20)	64380 *d.*	(3219 Gall.	=Anſwer.
		1		

By

By the Work I find, that if 20 Pence buy one Gallon of Lime-Juice, 268 *l.* 5 *s.* or 64380 *d.* will buy 3219 Gallons: And ſo much the ſecond Merchant gave the firſt for his Coffee-Berries.

Caſe 2.] When two Merchants barter, and the one rateth his Goods above the common Price for ready Money, to know how the other Merchant may advance the Price of his Goods, in proportion to the firſt Merchant, and how to barter without Loſs thereby.

Rule.] Conſider what the firſt Merchant's Goods are worth *per* Integer in ready Money, and how much he advanceth the Price in Barter: Then ſay, If the Price of a Unit of the firſt Merchant's Commodity advance ſo much in Barter (mentioning the difference between his ready Money and Batering Prices) how much muſt the Price of a Unit of the ſecond Merchant's Commodity advance above the ready Money-Rate in Barter; which having found, Work according to the Bartering Prices of each, as in the laſt.

Example.] A Merchant hath 15 Hundred, 1 Quarter of *Aleppo* Galls, which he valueth at 5 Pound 6 Shillings and 8 Pence *per* Hundred ready Money; but in Barter he will have 5 Pound 10 Shillings *per* Hundred. Another Merchant hath *Jambee* Pepper, at 14 Pence the Pound ready Money; how much Pepper muſt the ſecond give the firſt for his Galls, advancing his Price in Barter proportionably? Anſwer, 1394 $\frac{65}{111}$ Pounds of Pepper. See the Operation.

l.	*s.*	*d.*		*s.*	*d.*		*d.*
5	: 6	: 8	:	3	: 4	::	14
20				12			40
106 Shill.				*d.* 40			*d.* 560
12							4
1280*d.*				1280)			2240 *Qrs.* (1 $\frac{960}{1280}$ or 1 $\frac{3}{4}$ *Qrs.*
				1			1
							96

Here you ſee, that if 5 *l.* 6 *s.* 8 *d.* (or 1280 *d.*) advance 3 *s.* 4 *d.* in Barter; then 14 *d.* muſt advance 1 $\frac{3}{4}$ Farthing. So that now the Galls being 5 *l.* 10 *s.* or 1320 *d. per* Hundred, the Pepper is to be reckoned 14 *d.*, 1 $\frac{3}{4}$ *q.*, *per* Pound.

Then find the Value of the Galls, by adding the pence in 3 *s.* 4 *d.* to the foregoing 1280 *d.* which maketh 1320 *d.* by which multiply 15 Hundred 1 Quarter, (or 15.25, the Decimal of 1 Quarter being .25) and the Product is the Value of the Galls 20130 *d.* then find the Anſwer to the Queſtion by the following Proportion, *viz.* If 14 *d.* $1\frac{1}{4}$ *qrs,* buy one pound of Pepper; How many will 20130 *d.* buy?

d.	*q.*	*l.*	*d.*	
14 :	$1\frac{1}{4}$:	1 : :	20130 :	15.25 C.
4			4 Farthings	1320 *d. per Cent.*
$57\frac{1}{4}$ *qrs.*			80520 Farth.	3050
				4575
Or $\frac{231}{4}$ *qr.*			By the Firſt	1525
Caſe of Reduction of Vulgar Fractions.				20130.00 *d.*

Then by Diviſion of Vulgar Fractions.

$\frac{231}{4}) \frac{80520}{1} (\frac{322080}{231}$ Anſwer.

Which by the ſecond Caſe of Reduction of Vulgar Fractions is .1394$\frac{66}{231}$ pounds of Pepper and ſo much muſt be given for the Galls.

§. 4. *Concerning Exchange of Coin.*

IN this Section I ſhall endeavour, with what Brevity I well can, to take notice of ſeveral things, which other Authors, treating on this Subject have omitted: But which, I preſume will be very practical and uſeful; and in doing thereof, I ſhall diſcourſe on theſe Heads.

1. What Exchange is.
2. The Subject of Exchange.
3. The Par of Exchange.
4. The Courſe of Exchange.
5. Some Reaſons of the Riſe and fall of Exchange.
6. Give ſome Rules for keeping the Courſe near the Par.

1. Exchange of things, is to give one Thing for another; which is likewiſe called Barter or Commutation; But there the Things exchanged are always of a different Species, as Wool for Cloth,

Cloth, Silk for Stuff, *&c.* and when one is receiv'd, the other is deliver'd; or in ordinary Buying and Selling, Money is given for Goods, or Goods for Money; which is ſometimes given the one immediately for the other; and ſometimes the Money is paid by Contract, a certain time after the Goods are deliver'd, which is call'd Buying or Selling on Credit, or at Time: But Exchange (according to the ordinary Notion in Merchandizing) is to give Coin for Coin, *i. e.* the giving a Summ of Money in one place for a Bill, ordering the Payment of the like Summ (according to the Value agreed on) in another place. Now ſo often as theſe two places are in different Countries, the Exchange is Foreign, otherwiſe Inland: Of which, and of ſeveral Cuſtoms us'd among Merchants, with reſpect to Drawing and Accepting theſe Bills, and Paying and Receiving the Value therein, you have a large Account in Section the firſt of Chap. 11.

II. Money (the Subject of Exchange) and Commerce are inſeparable Companions; (of which we had too great Aſſurance in the late Regulation of Coin, where Trade decreaſed, as the Quantity of running Caſh;) tho' according to the Opinion of the Ingenious, Trade was firſt carried on without Money, every one being willing to give ſuch Commodities as they were poſſeſſed of, for thoſe of which they ſtood in need.

2. But becauſe, by this means, Men could not at all times fit others occaſions, it became neceſſary that the Receiver ſhould depoſit a Pledge with the Deliverer, to ſupply his Need on the like occaſion. And the moſt proper Material for that was found to be Silver, becauſe of its great Value among Men, not only by reaſon of its natural Perfections, as Cleanneſs, Unaptneſs to ruſt, Ponderouſneſs, *&c.* but alſo of its being leſs common than other Metals, which gave it a juſt eſteem among Traders, and was therefore pitch'd upon to be an Univerſal Pledge or Meaſure of all Commerce and Traffick, which we find, in Sacred Hiſtory, was ſo about 488 Years after the Flood.

3. But, to prevent the Receiver of this Silver being impoſed on by the Deliverer incorporating too great a Quantity of a baſer Sort of Metal with his Silver (which is not eaſily diſcovered by the Eye) it became neceſſary the Fineneſs of Silver ſhould be aſcertained by every Government, and to have certain Quantities at certain Values.

4. And

4. And to ſave the trouble of Weighing and Aſſaying every Piece receiv'd, which would greatly obſtruct the Diſpatch of buſineſs, by which Men ordinarily grow Rich: It became cuſtomary for Princes to cauſe ſuch and ſuch Stamps to be given to the ſeveral Denominations or Quantities of Silver, to be a Voucher of the Weight and Fineneſs thereof, which was call'd Coin, *Moneta* or Money, and is the Condition we have it in at this day; the Antiquity of which ſtamping Money, we can trace no farther back than the *Romans* Time, among whom, as the Ingenious Mr. *Vaughan* of *Greys Inn* tells us, *Servius Tullius* was the firſt.

5. I proceed now to ſhew the Weight and Fineneſs of our own Coin here in *England*, and ſhall in the next Article or Head, ſhew how the Coin of other Nations agrees in Value thereto; as being ſomething more brief and leſs troubleſome for the Reader to apprehend, than to inſert the Weight and Fineneſs of Foreign Coin, which I have done elſewhere.

6. Fine Silver being too Flexible for common uſe, either in Money or Utenſils, made it neceſſary to harden the ſame, by mixing a ſmall quantity of baſer Metal therewith, as Copper or Braſs; which is therefore called Allay; and Money is ſaid to be more or leſs fine, in proportion to the Quantity of Allay intermix'd with a certain Quantity of fine Silver. Thus of a pound of Bullion; if two ounces thereof be Copper, *&c.* the Bullion is ſaid to be 10 Ounces fine, and is not ſo Valuable as that which is 11 Ounces fine, *i. e.* that has but 1 Ounce Allay in it.

7. Hence it is evident, that *Engliſh* Silver being 11 ℥ 2*dw* fine, *i. e.* having but 18 *dw* of Allay in 12 Ounces of Bullion, a Pound thereof is more valuable than a Pound of that which is but nine Ounces fine; as the *Dutch*; or 10 Ounces fine, as the *French*, &c.

8. *Engliſh* Silver is call'd Sterling (as moſt believe from the name of the firſt Coiners thereof, who were ſent for from the Eaſtern parts of *Germany* by King *Richard* I. and were called *Eaſterlings.*) And all *Bullion*, having but 18 *dw.* of Allay in 12 Ounces of *Bullion* is ſaid to be Sterling fine.

9. The Fineneſs of *Engliſh* Gold is diſtinguiſh'd or aſcertain'd by the Caract, *viz.* 12 Ounces of Bullion is divided into 24 equal parts, each of which is one Caract, and each Caract into 4 Grains; of which 24 Caract, two are Allay; ſo that there is 22 Caracts of fine Gold, and 2 Caracts of Allay to the Standard of Gold in *England*, which is 22 Caracts fine.

10 En-

10. *Engliſh* Gold and Silver are weigh'd by *Troy*-weight, *viz.* Pounds, Ounces, dw. (or Penny weights) and Grains; and according to the common Price of Gold and Silver Bullion at preſent, (which on extraordinary occaſions does ſometimes riſe and fall, but not as other things do) the Weight and Value is as follows.

Of Silver Bullion.

	l.	*s.*	*d.*	*qrs.*
The Grain =	00 :	00 :	00 :	$0\frac{1}{2}$
D. weight =	00 :	00 :	03 :	0
Ounce =	00 :	05 :	00 :	0
Pound =	03 :	00 :	00 :	0

Of Gold Bullion.

	l.	*s.*	*d.*
The Grain =	00 :	00 :	02 —
D. weight =	00 :	04 :	00 —
Ounce =	04 :	00 :	00 —
Pound =	48 :	00 :	00 —

11. Having ſhew'd the Value of the ſeveral Denominations of Weight of Bullion; I come next to ſhew the Value, Fineneſs and Weight of our Silver and Gold Coin, *viz.*

Silver Coin calculated according to the Standard of the Mint, (12 Ounces of Bullion being Coined into 62 *s.* at which Rate the Crown peice is 19 dw. 8,51612903225, *&c.* Grains) is as follows.

Current Value of Coined Pieces.		*Value as Bullion, at 5 s. per Ounce.*			*Weight of Coined Pieces.*		*Fineneſs.*	
s.	*d.*	*s.*	*d.*	*qr.*	*dw.*	*gr.*		
5 :	00	4 :	10 :	$0\frac{1}{4}$	19 :	$08\frac{1}{8}$		
2 :	06	2 :	5 :	$0\frac{1}{8}$	9 :	$16\frac{1}{4}$	11 :	02
1 :	00	0 :	11 :	$2\frac{2}{10}$	3 :	$20\frac{9}{10}$		
0 :	06	0 :	5 :	$3\frac{9}{40}$	1 :	$22\frac{9}{20}$		
0 :	04	0 :	03 :	$3\frac{29}{60}$	1 :	$06\frac{29}{30}$		
0 :	03	0 :	02 :	$3\frac{49}{80}$	0 :	$23\frac{9}{40}$		
0 :	02	0 :	01 :	$3\frac{89}{120}$	0 :	$15\frac{29}{60}$		
0 :	01	0 :	00 :	$3\frac{109}{240}$	0 :	$07\frac{89}{120}$		

Gold

Gold Coin calculated according to the Standard of the Mint, 12 Ounces of Bullion being Coined into 44 ½ Guineas, at which Rate the Guinea will weigh 5 *dw.* 9.4382, *&c.* Grains, and the other Peices are for Weight and Value, according to the ſubſequent Table.

Pieces.	*The Current Value of Coined Pieces.*	*Value at Standard Rate.*	*Value as Bullion at 4 l. per Ounce.*	*Weight of Coined Pieces.*	*Fineneſs.*
	l. s. d.	l. s. d.	l. s. d. qr.	℥ dw. gr.	
The Guinea	1:01:00	1:00:00	1:01:06:3 ½	0:05:09 ⅔	22 Caracts or 11 ℥
The 5 Guin. Piece	5:05:00	5:00:00	5:07:10:1 ½	1:06:23	
The ½ Guinea	0:10:06	0:10:00	0:10:09:1 ¼	0:02:16 ½	
Car. or *Jac.* broad 20 *s.* Pieces	1:03:00	1:00:00	1:03:00 —	0:05:18	
Jac. broad Piece with the Scept.	1:05:00	1:02:00	1:05:00 —	0:06:06	

There are other Denominations of *Engliſh* Gold, as the Angel Gold, or Roſe Nobles, 23 Caracts, 3 ½ Grains fine; and the Pieces of different Weight, from 7 *dw.* 6 *gr.* to 9 *dw.* 18 *gr.* as alſo the Sovereign Gold, or 20 *s.* Pieces of *H.* VIII. but 20 Caracts fine, which I think is not proper to ſay more of, there being few or none to be ſeen Current now.

12. There are alſo made Current the *French* and *Spaniſh* Piſtoles about ½ a Grain worſe than Crown Gold, and the Weight being 4 *dw.* 8 *gr.* the Value thereof, at 4 *l.* the Ounce, is 17 *s.* 4 *d.* each, but they have through Cuſtom long paſſed Current among us for 17 *s.* 6 *d.* though their real Value in Proportion to Guineas at 20 *s.* is but 16 *s.* 1 ½ *d.* but if we allow them in Proportion to our Current Value, and give them the ſame Privilege (which Foreign Nations will not do in taking our Money) then in Proportion to a Guinea at 21 *s.* 6 *d.* the Piſtole ſhould go but for 17 *s.* 4 *d.* exactly; for as 5 *dw.* 9 *gr.* the Weight of a Guinea is to 21 *s.* 6 *d.* its Current Value, ſo is 4 *dw.* 8 *gr.* to 17 *s.* 4 *d.* they now paſs at 17 *s.*

It's true, the juſteſt Meaſure in taking and paying Foreign Coin, whether Gold or Silver (when the Fineneſs is known) is to be govern'd by the Price of Gold and Silver Bullion, which might once in a Week be affixed on the Exchange, or publiſh'd in the Gazette, and at the Rate of Gold Bullion, from 3 *l.* 10 *s.* to 4 *l.* the Ounce, Piſtoles are in Value as follows, ſuppoſing them

them of equal Fineneſs with Crown Gold; above which Rate or Proportion they ought never to be Current, ſo long as Guineas do not go at above 21 *s.* 6 *d.* But if we value Piſtols at a greater Rate than our own Guineas, we ſhall have little but the former Current.

The Value of an Ounce of Gold, being		*The* Span. *or* French *Piſtole is worth*	
l.	s.	s.	d.
3	10	15	2
3	11	15	$4\frac{1}{2}$
3	12	15	$7\frac{1}{4}$
3	13	15	$9\frac{1}{4}$
3	14	16	$0\frac{1}{4}$
3	15	16	$2\frac{1}{4}$
3	16	16	$5\frac{1}{2}$
3	17	16	8
3	18	16	$10\frac{1}{4}$
3	19	17	$1\frac{1}{4}$
4	00	17	4

Note alſo, that in proportion to Guineas paſſing Currant at 21 *s.* 6. the broad Gold is worth but 23 *s.* And a Jacobus 25 *s.*

But ſince my writing what is above; Piſtols are by a Proclamation, Dated in *January* $170\frac{9}{1}$. not to go Current at more than 17 *s.* nor are they worth that, ſo often as Gold Bullion is under 3 *l.* 19 *s.* 0. *per* ℥, as may be ſeen by the foregoing Table; and I am of Opinion, we ſhall have few Current, becauſe as they come into the Bankers, the heavieſt will probably be Coin'd into Guineas, there being a ſmall matter to be got thereby, Gold being at 4 *l.* the ℥, and the Coinage no Charge.

14. They that conſider the proportion between Gold and Silver, (which may likewiſe be gathered from the foregoing Tables) ought neceſſarily to mention whether the Analogy of Weight (Bulk for Bulk) or of Value, and at what price they Rate each; whether that price be of fine Gold or fine Silver, or allay'd; and whether they mean the price as Bullion at preſent, or at the Standard Rate, otherwiſe their Calculation muſt be uncertain, and they leave the Reader in the dark; therefore to make this matter plain, I have inſerted the Proportions following, being all the Caſes I could think Uſeful.

1. The Weight of fine Silver to that of fine Gold (Bulks alike) is, As 1 to 1.83896, *&c.*

2. Fine Silver to fine Gold, calculated from the Standard Rate, the Pound of fine Gold being worth 48*l.* 10*s.* 10*d.* and fine Silver 3*l.* 6*s.* 11$\frac{1}{4}$*d.* is,

As 1 to 14.49, *&c.*

3. Sterling Silver to Crown Gold at Standard Value of 44$\frac{1}{2}$ Guineas the Pound of Gold, and 3*l.* 2*s.* the Pound of Silver, is,

As 1 to 15.431, *&c.*

4. Sterling Silver at 5*s.* the Ounce to Crown Gold at 4*l.* the Ounce is, As 1 to 16.

5. Sterling Silver to Crown Gold, according to the current Value of Silver and Gold 129.4 Grains of Gold passing current for 21*s.* 6*d.* and 19*dw.* 8$\frac{1}{2}$ Grains of Silver running at 5*s.* is,

As 1 to 15.4354.

6. Fine Gold to Crown Gold, is in Value,

As 1 to .9167, *&c.*

7. Fine Silver to Sterling Silver, is in Value,

As 1 to .9260, *&c.*

And from these several Proportions may be deduc'd many useful things relating to the Weight, Fineness and Valuation of Gold and Silver. But such as desire to see the Proportions that have been formerly between Gold and Silver (as to Value) both in this and other Nations, may Read the Account in *Lex Mercat.* pag. 213, *&c.* Mr. *Vaughan*'s Coin and Coinage, *p.* 19; and especially Mr. *Lownd*'s accurate Report thereof to the Lords of the Treasury, *p.* 35 to 59, of his Essay for the Amendment of the Silver Coin; but I think none of these contain any thing of the Nature with those above.

III. I am next to consider the Par of Exchange, and to know what is meant by it, this will be easie, if you know what it is to Exchange, for when he to whom a Bill is payable receives of the Acceptor just so much Money in Value (Weight and Fineness consider'd) as was paid to the Drawer by the Remitter, than the Exchange is according to Par, *viz. Par pro Pari*, or Value for Value. But before it can be known whether an *English* Merchant in his Exchange to any Foreign Place or Country gains or loseth by that Exchange, by paying less or more than the Par of the Money of the Place he Exchangeth to (which he often does considerably, as will appear by the following Sections of this Chapter) he must necessarily know the Value of the foreign Coins in.

in *Engliſh* Money, for which Reaſon I have inſerted the Tables following, which contain the Values (according the beſt Account I can procure) at leaſt of all thoſe Denominations of Foreign Coin, in which Exchanges are made with *England*.

2. The Denominations *England* Exchangeth in with other Countries, are in Pounds with *Rotterdam*, *Amſterdam*, *Antwerp* and *Hamburgh*; in Pence with *Paris*, *Calis*, *Madrid*, *Genoa*, *Leghorn*, *Venice*; and all other Parts of *France*, *Spain* and *Italy*; in Shillings and Pence with *Lisbon*, *Oporto*, and the reſt of *Portugal*; and by the Hundred Pounds with *Ireland*. And in what Denominations they Exchange with us, you will ſee in the next Section.

3. The Value of Foreign Coins, real and imaginary, in Sterling, according to the reputed Par, is as followeth.

Engliſh Money.

		s.	d.	q.
French Coin.	1 Denier is Sterling	00	00	$00\frac{3}{10}$
	12 Deniers, or 1 Soulz is	00	00	$03\frac{1}{3}$
	20 Soulz, or 1 Lievre is	01	06	
	3 Lievres, or 1 Crown *French* is	04	06	
Holland and *Flanders* Coin.	1 Stiver is Sterling	00	$01\frac{1}{5}$	
	5 Stivers is	00	06	
	6 Stivers, or 1 Shilling *Flemiſh* is	00	$07\frac{1}{5}$	
	20 Shilling *Flemiſh* is Sterling	12	00	
	33 Shillings 4*d*. *Flemiſh* is Sterling	20	00	
	1 Guilder, or 20 Stivers is	02	00	
	1 *Zealand*, or common Doller	03	00	
	1 Duccatoon	05	06	
	1 Specie Doller	05	00	
Spaniſh Coin.	$13\frac{77}{100}$ Malvadies of *Spain* is Sterl.	00	$00\frac{1}{4}$	
	372 Malvadies, or 1 Ryall is	00	$06\frac{1}{4}$	*qrs.*
	~~8 Ryals, or a Piece of eight *Seuil* is~~	04	06	$1\frac{96}{100}$
	1 Piece of Eight *Mexico* is	04	06	$1\frac{7}{29}$
	Ditto *Peru* is	04	05	$1\frac{488}{1000}$
	Ditto *Pillar* is	04	06	$3\frac{168}{1000}$
Portugal Coin.	12.42 Rees of *Portugal* is Sterling	00	01	
	1 Mill Ree, or 1000 Rees is Sterl.	06	$08\frac{1}{2}$	
	1 Teſtoon is	01	03	

		s.	d.	q.
Italy and *Venice* Coin.	1 Lievre at *Legborn* is Sterling	00	09	
	1 Crown current at *Florence*	05	03	
	1 Ducat *de Banco* at *Venice*	04	04	
	1 St. *Mark*	02	10	
	1 *Palermo* Florin is 6 Tari, or	02	06	
German Coin.	1 Old Rix Dollar of the Empire	04	06	
	32 *s.* at *Hamburg*	20	00	
	1 Gilder of *Norenburg* is	07	01	

			dw.				
The Fineneſs of a Piece of Eight	*Pillar*	being	11 : 04	And the weight of it 17 *dw.* 12 *gr.* the Value is	4 : 6 :	3	168/1000
	Sevil		11 : 03		4 : 6 :	1	948/1000
	Mexico		11 : 02		4 : 6 :	1	7/1000
	Peru		10 : 10		4 : 5 :	1	488/1000

I have been more exact in the Calculations of the value of theſe Pieces of Eight, by reaſon they are ſo univerſally uſed in moſt Foreign Trafficks.

4. And as there is a Par of Money, ſo there is an Equation of Weights and Meaſures with the Engliſh, which is very uſeful in knowing how to valſue Foreign Goods, by reducing the Quantity to *Engliſh* Weight or Meaſure, and the contrary to value *Engliſh* Commodities, by reducing them to Foreign Weights and Meaſures, for which purpoſe I have inſerted theſe Tables.

By a Proclamation, dated June 18. 1704. *for aſcertaining the Current Rates of Foreign Coins in Her Majeſty's Colonies and Plantations in* America, *confirmed by Act of Parliament,* Anno 6. Ann. *the ſame is as followeth.*

	Weight. dw. gr.	*True Value* s. d.	*Current Value not to exceed* s. d. q.
Sevil Pieces of Eight (old Plate)	17 : 12	4 : 6	6 : 00 : 0
Ditto new Plate	14 : 00	3 : 7¼	4 : 09 : 2⅔
Mexico Pieces of Eight	17 : 12	4 : 6	6 : 00 : 0
Pillar Pieces of Eight	17 : 12	4 : 6¼	6 : 00 : 0
Peru Pieces of Eight (old Plate)	17 : 12	4 : 5	5 : 10 : 2⅔
Croſs Dollars	18 : 00	4 : 4¼	5 : 10 : 1⅓
Duccatoons of *Flanders*	20 : 21	5 : 6	7 : 04 : 0
Ecu's of *France* (or Silver *Lewis*)	17 : 12	4 : 6	6 : 00 : 0
Cruſadoes of *Portugal*	11 : 4	2 : 10¾	3 : 09 : 2⅔
Three Gilder Pieces of *Holland*	20 : 7	5 : 2¼	6 : 10 : 3⅓
Old Rix Dollars of the Empire	18 : 10	4 : 6	6 : 00 : 0

The Half, Quarters, and other Parts, in proportion to their Denominations, and light Pieces in proportion to their Weight.

And to remedy the Inconveniency which was cauſed by the different Rates, at which Pieces of the ſame Species were Current, It was order'd by the ſaid Proclamation, and confirmed by the ſaid Act, That after *January* 1. 1704. no *Sevil*, *Pillar*, or *Mexico* Pieces of Eight, tho' of full Weight as above, ſhall be received or paid at above 6 *s. per* Piece, and the Half, Quarters, and other leſſer Pieces, in proportion. And the Currency of all the other Pieces above-mention'd, not to exceed the ſame proportion.

And the ſaid Act enjoins, That if any one ſhall receive, or pay any of the Pieces for more than as above, they ſhall forfeit 10 *l.* and ſuffer 6 Months Impriſonment.

Note, The Proportions above (of the current Value) are computed from the intrinſick Value of the Pieces of Eight, *Sevil* or *Mexico*.

One

One Ell *English* is,		1 Pound *Averdupoize*, is, of	
			their *lb.*
IN *Flanders* as at *Antwerp*	1.66	Ells	
——— *Bridges*	1.64	Ells	0.96
In *Holland* as at *Amsterdam*, Linnen	1.69	Ells	0.98
In *France* as at *Paris*	0.95	Aulns	0 9
——— *Lyons*	1.016	Aulns	0.89
——— *Callis*	1.57	Aulns	1.07
——— *Rouen*	1.0	Aulns	0.88
In *Italy* as at *Venice*	1.96	Braces	0.94
——— *Leghorn*	2.0	Braces	1.28
——— *Millan*	2.3	Braces	1.37
In *Germany* as at *Bremen*	2.03	Ells }	0.92
——— for *Osnabrig* Linnen	1.05	Ells }	
——— at *Vienna* for Linnen	1.28	Ells }	0.81
——— Woollen	1.41	Ells }	
——— at *Leipsig* for Linnen	1.75	Ells }	0.92
——— Woollen	3.0	Ells }	
Denmark as at *Hamburgh* for Linnen	2.07	Ells }	0.92
——— Woollen	2.03	Ells }	
In *Poland* as at *Dantzick*	2.03	Ells or .017 ſhock	1.16
——— *Cracow*	2.03	Ells or .017 ſhock	1.2
In *Sweden* as at *Stockholme*	2.07	Ells	1.16
——— at *Riga*	2.07	Ells	1.16
——— *Narva*	2.07	Arſins	1.16
In *Portugal* as at *Lisbon* for Linnen	1.025	Vares }	0.88
——— Woollen	1.56	Covados }	
In *Spain* as at *Barcelona*	0.71	Canes	1.68
——— *Malaga*	1.043	Vares	0.95
——— *Cadiz*	1.35	Vares	0.88
In *Muscovy* as at *Archangel*, &c.	1 61	Archins	0.927 *Pood.* 0.0027 *Berckovet*

How our *English* Yard agrees with other Country Meaſures, See [Yard] in the Dictionary; and the Values of moſt other Weights, Meaſures, Coins, &c. not here mentioned may be found there.

The Uſe of this Table, is,

Admit I would reduce 11465 Aulns of *Lyons* into Ells *Engliſh*. By the Table I find that 1.016 Auln is 1 *Engliſh* Ell, therefore ſay,

Auln	*Ell*	*Auln*	*Ells*
1.016	1 ::	11465	11284.44 Anſwer.

5. Tables of *Turkey* Weights, of which the proportion between a *Turkey* and *Engliſh* Dram I received from a Book-keeper to a *Turkey* Merchant, which I have reduced to *Engliſh* Weight, as followeth.

A Table

A Table of Aleppo *Weight.*

	Drams Aleppo	*Drams Engliſh*	*lb. ou. dr. Engliſh*
1 Rottello =	720 =	1260 =	4 : 14 : 12
1 Rottello =	700 =	1227 =	4 : 12 : 11
1 Rottello =	680 =	1194 =	4 : 10 : 10
Kintall =	68000 =	119231 =	465 : 11 : 15

A Table of Smyrna *Weight.*

	Smyrna Drams.	*Engliſh Drams.*	*Engliſh l. ou. dr.*
	0.57 =	1 or =	00 : 00 : 01
	1.00 =	1.753 =	00 : 00 : 01¾
	146.0 =	256.0 =	01 : 00 : 00
1 Rotello =	180 =	315 =	01 : 03 : 11
1 Oke of =	400 =	701 =	2 : 11 : 13
1 Oke of =	250 =	438 =	1 : 11 : 06
1 Oke of =	120 =	210 =	0 : 13 : 02
1 Kintall =	18000 =	31545 =	123 : 02 : 09
1 Kintall =	17600 =	30844 =	120 : 07 : 12
1 Batman =	2400 =	4207 =	16 : 06 : 15
1 Chique =	800 =	1402 =	5 : 07 : 10

6. *The Conſtruction and Uſe of the Table of* Alleppo *Weight.*

The true *Alleppo* Rottello is 720 Drams, and is equal to 4 *Smyrna* Rotelloes, and by this Rottello all Goods of *Alleppo* are weigh'd.

By the ℔ of 700 Drams, white Silk is only weigh'd.

By the ℔ of 680 Drams, *Perſia* Silk, as Legee and Ardaſs are paid for, but they are weighed by the ℔ of 700 Drams.

The Reduction of theſe Weights will be eaſy to all that underſtand but Multiplication and Diviſion; for any Number of *Smyrna* ℔ (or Rottello's) are reduc'd to *Alleppo* ℔ by dividing by 4; and the *Alleppo* into *Smyrna* by multiplying by 4. Or the ℔ of 720 Drams are reduc'd to thoſe of 680, by multiplying the given ℔ by 720 or 18, and dividing by 680, or by 17 reſpectively, and the contrary for reducing ℔ of 680, to thoſe of 720 Drams. For as 680 to 720, ſo is 17 to 18.

7. *The Conſtruction and Uſe of the Table of* Smyrna *Weight.*

By the Oke of 400 Drams are weighed Cloves, Mace, Pepper, Benjamin, Gum-Arabick, Sea-Horſe Teeth, Galbanum, Ginger, Indigo, Gum-tragant, Vachetoes, White Cordefant, Scammony, Wormſeed, Coucheneal, Salſa Parella, Nutmegs Cinnamon, Rhubarb, Senna and Caſſia.

By

By the Oke of 250 Drams is weighed Opium. And by that of 120 Drams, Saffron.

There are 2 ſorts of Kintals; The firſt containing 45 Okes of 400 Drams each, or 18000 *Smyrna* Drams. By which Kintal are weighed Gauls, Alum, Cotton-Yarn, Lead, Brazile-wood, Valonia Logwood, Steel, Sugar, Bees-Wax and Gum-Almonds.

The ſecond Kintal contains 44 Okes of 400 Drams each, or 17600 *Smyrna* Drams, by which they weigh Cotton-Wool, Sheeps-Wool, Tin, Box-wood and Aniſe-ſeeds.

The Batman contains 6 Okes of 400 Drams each, or 2400 Drams, by which they weigh Legee, Ardaſs and Sherbafee-Silk.

The Chique contains 2 Okes of 400 Drams each, by which they weigh Goats-Wool.

The Uſe of the Table of Smyrna *Weight.*

If you would reduce any kind of Merchandize, which you have weighed to you in this Weight, either into ſome other Denomination of *Turkey*, or into *Engliſh* Weight, this is the

General Rule] Multiply the Number given by the Tabular Number anſwering a Unit of the ſame Denomination, and divide the Product by the Tabular Number anſwering to a Unit of the Denomination, into which you would reduce the given Number, and the Quotient is the Anſwer: Always obſerving to multiply and divide by the *Smyrna* Weight, when you would reduce into *Smyrna* Weight. And to multiply the Number given by the *Engliſh* Drams in a Unit of that Denomination, and afterwards reduce thoſe Drams into Pounds.

Example.] In 470 Okes of Saffron, each 120 Drams, how many Rottello's?

Rule.] Multiply 470 by 120, and the Product divide by 180, and the Quotient is Rottello's 313⅓.

Or if you would reduce the 470 Okes into Pounds *Engliſh*; multiply the ſame by 210, *Engliſh* Drams in that Oke, and the Quotient is *Engliſh* Drams for Anſwer, which reduce into *Engliſh* Pounds, thus;

470 Okes given.
210 Drams in the Oke.

47
94

	ou.	*l.*	*ou*	*dr.*
16) 98700 Drams *Engl.*	(6168	(389:	08:	12 Anſwer.
12 Drams rem.	8 *ou.* rem.			8. As

8. As to calculating the Par of Money; tho' there is more difficulty in this Matter, than moſt People imagine, yet I do not find that any one has diſcuſs'd it ſo plain to a mean Capacity as might be wiſh'd; but ſince it is a Thing that ought to be certainly known and underſtood, becauſe of great uſe among Merchants, I have for their Sakes (for whoſe Service this whole Treatiſe is calculated) made the Thing as plain as I can, as follows.

9. The firſt Thing then to be conſider'd, is, that all foreign Coin is Bullion to us, and ours Bullion to them, ſo that the extrinſick Value is not to be regarded in computing the Par of Exchange.

10. The ſecond Thing conſiderable, is the Fineneſs of our own Coin, and the Weight and Fineneſs of the Foreign, which we are to receive in Exchange; and this Knowledge of the Forreign muſt be acquired either to be ſo by the Experience of ſome authentick Author, or by the Merchants actual Aſſaying and Weighing of ſome of the ſame Pieces.

Thus for Example. Admit it were required to know how much Sterling Bullion or Coin may be given for 1000 Pieces of Eight *Sevil*.

	℥ *dw.*
The Fineneſs of our own Coin I know is	11 : 2
And the Fineneſs of a Piece of Eight, I find to be	11 : 3
And its Weight 17 *dw.* 12 *grs.*	
Or the Weight of 1000 Pieces I find	875 : 0

11. The third Thing is to know how many Ounces of Silver 11 Ounces 2 *dw.* fine, is equal to 875 Ounces of 11 Ounces 3 *dw.* fine, which is found by ſingle indirect Proportion, thus,

℥ *dw.*	℥	℥ *dw.*	℥
11 : 3.	875 ::	11 : 2.	878.94144 Anſwer.

Here I find that I may give 878.94144 Ounces of Bullion 11 Ounces 2 *dw.* fine, for 875 Ounces of Bullion of 11 Ounces; 3 *dw.* fine, (or for 1000 Pieces of Eight *Sevil*) which if I pay in Coin, I muſt for the 1000 Pieces of Eight, pay 227 *l.* 1 *s.* 2¼ *d.* Sterling, for,

Grains	*l. Sterl.*	*Grains*	*l. Sterl.*
1858.0645	. 1 ::	421891.89	. 227.059

That is to ſay; as 1858.0645 (the Grains in 1 Pound Sterling) is in proportion to 1 Pound Sterling;

So is 421891.8912 the Grains in 878.94144 Ounces of Bullion 11 Ounces 2 *dw.* fine, which are equal in Value to the 1000 Peices of Eight.

To 227.059 *l.* Sterling, or 227 : 1 *s.* 3$1\frac{1}{4}$.

But ſo often as I can Buy 878.941 Ounces of Bullion for leſs than 227 *l.* 1. *s.* 2$\frac{1}{4}$*d.* (which I can always do ſo often as Sterling Silver is under 5 *s.* 2*d. per* Ounce) ſo often I gain, by making my Exchange in Bullion: As ſuppoſe I can buy Bullion for 5 *s.* 1 *d. per* Ounce, at that Rate the 878.941 Ounces (which I am to give for the 1000 Pieces of Eight) will ſtand me in 223 *l* 7 *s.* 11 *d*$\frac{1}{2}$. which is leſs than 227 *l.* 1 *s.* 2$\frac{1}{4}$*d.* (the Sum I pay Exchanging in Coin) by 3 *l.* 13 *s.* 2$\frac{1}{4}$*d.* which is my Gain by exchanging in Bullion. And thus in Exchanges the Par of Money and Bullion ought to be conſidered, as well as the Par of the Domeſtick and Foreign Coins.

13. But tho' the foregoing Rules contain a true Method of calculating the Par of Money, yet ſince the Price of Exchange is generally agreed on, that ſo many Pence or Pounds Sterling ſhall be paid for a Piece of Eight, or other Denomination of Foreign Coin, it is alſo uſeful and very ſatisfactory to know how much Sterling Money each of thoſe Foreign Pieces are worth, and for this reaſon I have in the foregoing Table, under Article 3d of the general Head, of the Par of Exchange, ſhewed the true Value of each Piece of Foreign Coin; ſo that by inſpection the Merchant may know (when a Bill is drawn on him, by ſeeing the Price Currant of Exchange) whether that Price (called the Courſe of Exchange, which I ſhall ſpeak to next) be above or below the Par, and conſequently whether himſelf or the Nation gain or loſe thereby.

IV. The Courſe of Exchange is the current or running Price of Exchange to all Places where there is any, which is ſometimes above, ſometimes below the Par, according as the ſame is influenced by the Accidents and Circumſtances of Trade and Nations, and this differs only from the Par in this: That the Par of Exchange ſhews what other Nations ſhould allow in Exchange, which is certain and fixed. But the Courſe ſhews what they will allow in Exchange; which is uncertain and contingent.

2. And tho' there are Tables of the Courſe of Exchange publiſhed once or twice every Week, yet I find the generality of Perſons ignorant of the meaning thereof, which induced me to explain the ſame as followeth.

The Course of Exchange Octob. 20. 96.		*Par of Exchange.*
Amsterdam	31 *s.* 06 *d.* Flemish for 1 *l.* Sterling	33 *s.* 4 *d.* Flem
Rotterdam	31 *s.* 08 *d.* Flemish for 1 *l.* Sterling	33 *s.* 4 *d.* Flem.
Antwerp	31 *s.* 05 *d.* Flemish for 1 *l.* Sterling	33 *s.* 4 *d.* Flem.
Hamburgh	30 *s.* 04 *d.* for 1 *l.* Sterling	32 *s.* 0
Madrid	56½ *d.* Sterling for 1 piece of 8 *Mex.*	54¼ *d.* Sterl.
Cales	56½ *d.* Sterl. for 1 piece of 8 *Mex.*	54¼ *d.* Sterl.
Genoa	62½ *d.* Sterl. for 1 piece of 8 *Mex.*	54¼ *d.* Sterl.
Leghorn	62½ *d.* Sterl. for 1 piece of 8 *Mex.*	54¼ *d.* Sterl.
Venice	59½ *d.* Sterl. for 1 Ducat	52¼ *d.* Sterl.
Paris	51 *d.* Sterl. for 1 Crown *French*	54 *d.* Sterl.
Lisbon	6*s.*6*d.* Sterl. for 1 Millree	6*s.*08½*d.* Sterl.
O-Porto	6*s.*5*d.* Sterl. for 1 Millree	6*s.*08½*d.* Sterl.

Note, That Bills are usually drawn to and from *Dublin* in *Ireland*, payable at 21 Days. And the Exchange sometimes 8, 9, 10, *&c.* Pounds *per Cent*, allowed for Return.

The Table is so plain, it needs no Construction, for it shews that on the 20*th* of *October*, 1696. the Course of Exchange to *Amsterdam* was 31 *s.* 6 *d.* Flemish, for 1 Pound Sterling, which is 1 *s.* 10 *d.* Flemish *per* Pound loss to us, it being so much under the Par, or 33 *s.* 4 *d.* and so of the rest.

3. A TABLE Shewing how much Sterling Dollars, Ducats, Pieces of Eight, Flemish

Pieces of Foreign Coin	At 48 d. per ps.	At 49 d. per ps.	At 50 d. per ps.	At 51 d. per ps	At 52 d. per ps.	At 53 d. per ps.	At 54 d. per ps.	At 55 d. per ps.	At 56 d. per ps.
	l.	*l.*	*l.*	*l.*	*l.*	*l.*	*l.*	*l.*	*l.*
1	000.2	000.204	000.208	000.212	000.217	000.221	000.225	000.229	000.233
2	000.4	000.408	000.417	000.425	000.433	000.442	000.45	000.458	000.467
3	000.6	000.612	000.625	000.637	000.65	000.667	000.675	000.687	000.7
4	000.8	000.816	000.833	000.85	000.867	000.883	000.9	000.917	000.933
5	001.0	001.021	001.042	001.062	001.083	001.104	001.125	001.146	001.167
6	001.2	001.225	001.25	001.275	001.3	001.325	001.35	001.375	001.4
7	001.4	001.429	001.458	001.48	001.517	001.546	001.575	001.604	001.633
8	001.6	001.633	001.671	001.7	001.733	001.767	001.8	001.833	001.867
9	001.8	001.837	001.875	001.912	001.95	001.937	002.025	002.002	002.1
10	002.0	002.042	002.083	002.125	002.167	002.208	002.25	002.292	002.333
20	004.0	004.083	004.167	004.25	004.333	004.417	004.5	004.583	004.667
30	006.0	006.125	006.25	006.375	006.65	006.612	006.75	006.875	00 7.0
40	008.0	008.167	008.333	008.5	008.667	008.833	009.0	009.167	009.333
50	010.0	010.208	010.417	010.625	010.833	011.042	011.25	011.458	011.666
60	012.0	012.25	012.5	012.75	013.0	013.25	013.5	013.75	014.0
70	014.0	014.292	014.583	014.875	015.167	015.458	015.75	016.042	016.333
80	016.0	016.333	016.667	017.000	017.333	017.666	018.0	018.333	018.667
90	018.0	017.375	018.75	019.125	019.5	019.875	020.25	020.625	021.0
100	020.0	020.417	020.833	021.25	021.667	022.083	022.5	022.917	023.333
200	040.0	040.834	041.667	042.5	043.333	044 167	045.0	045.833	046.667
300	060.0	061.25	062.5	063.75	065.0	066.25	067.5	068.75	070.0
400	080.0	081.667	083.333	085.000	086.666	088.333	090.0	091.667	093.333
500	100.0	102.083	104.167	106.25	108.333	110.417	112.5	114.583	116.667
600	120.0	122.5	125.000	127.5	130.0	132.5	135.0	137.5	140.0
700	140.0	142.917	145.833	148.75	151.665	154.583	157.5	160.416	163.333
800	160.0	163.333	166.667	170.0	173.333	176.667	180.0	183.333	186.667
900	180.0	183.75	187.5	191.25	195.0	198.75	202.5	206.25	210.0
1000	200.0	204.167	208.333	212.5	216.666	220.833	225.0	229.167	233.333
2000	400.0	408.334	416.667	425.0	433.333	441.667	450.0	458.333	466.667

Money is contain'd in any Number of Crowns, Pounds, &c. from 1 to 2000.

Pieces of Foreign Coin	At 57 *d.* per ps	At 58 *d.* per ps.	At 59 *d.* per ps.	At 60 *d.* per ps	At 33 *s.* per ps.	At ¼ *d.* per ps.	At ⅛ *d.* per ps.	At ⅛ *d.* per ps.	At ⅜ *d.* per ps.
	l.	*l.*	*l.*	*l.*	*l.*	*l.*	*l.*	*l.*	*l.*
1	000.235	000.242	000.246	000.25	000.606	00.001	00.002	00.003	00.004
2	000.475	000.483	000.492	000.5	001.212	00.002	00.003	00.005	00.007
3	000.712	000.725	000.737	000.75	001.818	00.003	00 005	00 008	00.011
4	000.95	000.967	000.983	001.0	002.424	00.004	00.006	00.010	00.014
5	001.187	001.208	001.229	001.25	003.03	00.005	00.008	00.013	00.018
6	001.425	001.45	001.475	001.5	003.636	00.006	00 005	0.015	00.022
7	001.662	001.692	001.721	001.75	004.242	00.007	00.011	00.018	00.025
8	001.9	001.933	001.967	002.0	004 848	00.008	00.012	00.021	00.029
9	002.137	002.175	002.212	002.25	005.454	00.009	00.014	00.024	00.033
10	002.375	002.417	002.458	002.5	006.060	00.010	00.016	00.026	00.035
20	004.75	004.833	004.917	005.0	012.121	00.021	00.031	00.052	00.073
30	007.125	007.25	007.375	007.5	018.181	00.032	00.047	00.078	00.109
40	009.5	009.667	009.833	010.0	024.242	00.042	00.062	00.104	00.146
50	011.875	012.083	012.292	012.5	030.303	00.052	00.078	00.130	00.182
60	014.25	014.5	014.75	015.0	036.364	00.062	00.094	00.156	00.219
70	016.625	016.917	017.208	017.5	042.424	00.073	00 109	00.182	00.251
80	019.0	019.333	019.667	020 0	048.485	00 083	00.125	00.208	00.292
90	021.375	021.75	022.125	022.5	054.545	00.094	00.141	00.234	00 328
100	023.75	024.167	024.583	025.0	060.606	00 104	03.156	00.260	00.365
200	047.5	048.333	049.167	050.0	121.212	00.208	00.312	00.521	00.729
300	071.25	072.5	073.75	075.0	181.818	00.312	00.469	00.781	01.094
400	095.0	096.667	098.333	100.0	242.424	00.417	00.625	01 041	01.458
500	118.75	120.833	122.917	125.0	303.03	00.521	00.781	01.301	01.823
600	142.5	145.0	147.5	150.0	363.636	00.625	00.937	01.561	02.190
700	166.25	169.167	172.083	175.0	424.242	00.729	01.093	01.822	02.552
800	190.0	93.333	196.667	200.0	484.848	00.833	01.249	02.083	02.917
900	213.75	117.5	221.25	225 0	545.455	00.937	01.406	02.344	03.281
1000	237.5	241.667	245.833	250 0	606.060	01.042	01.562	02.604	03 646
2000	475.0	482.333	491.667	500 0	1212.211	02.083	03.125	05.209	07.291

The Construction of the Table foregoing.

The first Column towards the left-hand is any Number of *Crowns*, *Dollars*, *Ducats*, *Pieces of Eight*, *Flemish-pounds*, or any other Denomination of Foreign Coin, whose Value is as expressed at the Head of each Column; the 13 Columns next, shew the Sterling Money that any Sum of Foreign Coin is equal to, at any Rate, from 48 *d.* to 60 *d.* Sterling, for each Piece of Foreign Coin. The 5*th* Column from the Right-hand, sheweth how many Pounds Sterling are contain'd in any Number of Flemish-pounds, from 1 to 2000, at the Rate of 33 *s.* Flemish, for 20 *s.* Sterling. The four Columns next the Right-hand, shew the Amount of any Piece of Coin at $\frac{1}{4}$, $\frac{3}{8}$, $\frac{5}{8}$, or $\frac{7}{8}$ of a Penny *per* Piece, whose Use shall be shewed by and by.

The Calculation of the Table.

Multiply any of the Numbers at the Head of a Column by any of those in the Column next the Left-hand, and the Product is the Tabular Number answering the said two Numbers in Sterling Money, except the Column of Flemish-pounds, which is thus Calculated:

As 33 Shillings Flemish,
Is in Proportion to 1 Pound Sterling;
So is 20 Shillings Flemish,
To .606060 *l.* Sterling, which Number being Multiplied by any of the Numbers in the Column next the Left-hand, produces the respective Number in Sterling Money, answerable to the aforesaid Number in the Left-hand Column, supposing them Flemish-pounds.

The Use of the Table in Casting up Bills of Exchange.

Admit you would know how much Sterling Money is contain'd in 1000 Dollars, each 60 $\frac{1}{2}$ *d.* Sterling.

Look for 1000 in the Column next the Left-hand, and in a right Line toward the Right-hand, under 60 *d.* is —— 250.0 *l.*
Then look under $\frac{1}{4}$ *d.* and you find 1.042, which doubled (for the $\frac{1}{2}$ *d.*) is —— 2.084 *l.*

The Sum of which is the Answer, makes Sterling —— 252.084 *l.*

Note, that if the Sum given of Foreign Coin is 1500, 1820, 2500, *&c.* you may take the Answer out at twice or thrice.

V. I have hinted before, that there are accidental or contingent Cauſes of the Riſe and Fall of Exchange, and theſe Cauſes are either general or more particular.

2. The Cauſe in general of the Fall of Exchange is, when any thing happeneth in a Nation or Place, that interrupts and obſtructeth the Courſe of Trade, ſo that it cannot be carried on in ſo good Order, or in ſo great Quantity in the Groſs, as it formerly uſed to be, the contrary whereof maketh the Courſe of Exchange riſe in favour of that Nation. Now theſe accidental Interruptions happening in one, two, *&c.* Places of a Nation or Country unknown to the reſt thereof, gives Occaſion for ſome to aſſert, that the Riſe and Fall of Exchange is unaccountable; only, in truth, becauſe they cannot ſurvey and diſcern the circumſtances of the whole Body of Trade ſo well as they can their own, or perhaps that of the Town in which they reſide. But more particularly.

3. When the Ballance of Trade runneth againſt a Nation, *i. e.* when a Nation has more Occaſion to pay Debts in foreign Parts, than they have to receive from thence; in this Caſe, the Courſe of Exchange will run low againſt ſuch a Nation, which Ballance of Trade is only perceivable by its Effects, the greatſt and moſt viſible of which is the raiſing the Courſe of Exchange.

4. Another Cauſe of the Exchange running low againſt any Nation is, when the Coin thereof is debas'd or diminiſh'd either in Weight or Fineneſs (as I have ſhew'd more at large in another Occaſion) this we have had a Specimen of, when our coin'd Silver was ſo prodigiouſly clipt, that near $\frac{1}{3}$ was diminiſhed. And coin'd Gold at 30 *s.* that was coined but at 20 *s.* the *Dutch* (and other Nations in like manner) allow'd but 26 and 27 *s.* Flem. for 20 *s.* Sterling, whereas now, ſince the amending our Silver, and lowering the value of our Gold Coins. the *Dutch* have allow'd us (and other Nations proportionably) 35 *s.* for 20 *s.* Sterling.

5. The Riſe or Fall of Bullion riſes or falls the Courſe of Exchange.

6. When any Nation is oblig'd to maintain an Army out of their own Country, this will fall the Courſe of Exchange againſt ſuch a Nation.

7. Sometimes Embargoes, ſometimes contrary Winds, ſometimes too great encouragement of importing Foreign, and diſcouragement of exporting Inland Goods, *&c.* lower the Courſe of Exchange, tho' not immediately, but by influencing the Ballance of Trade. Theſe

Theſe Cauſes are ſufficient to ſuch as were ignorant thereof before, as for ſuch as were not, they will as eaſily gueſs at the other Cauſes of the Riſe and Fall of Exchange, as I can inform them.

VI. As the Preſcription of fit and proper Remedies do naturally reſult from a right Apprehenſion of the Cauſe of a Diſtemper or Irregularity; ſo do the Rules I am now upon, from the Cauſes delivered in the laſt general Head, which might be a ſufficient Reaſon for me to leave every one to draw their own Conſequences; yet becauſe ſome young Tyroes might be miſled, I ſhall give them what Aſſiſtance I am able in the matter.

2. The firſt Rule that may be given to keep the Courſe of Exchange as high as the Par, is to keep our ſelves from being indebted to Forigners, which ſome would have done, by keeping a ſtrict Account of the Ballance of Trade; but that being impoſſible, having never been done, nor never like to be, I rather adviſe, that every particular Merchant be obliged to take care that his Exports be equivolent to his Import, *i. e.* that he imports no more Foreign Goods, than what the Commodities which he exported, will purchaſe in the Foreign Markets, which would every Merchant do (tho' this would not diſcover the groſs Sums of the Value of the Exportations and Importations in the whole Body of Trade, which ſome have induſtriouſly ſought after, in order to know the whole Ballance,) yet it would keep us without a Ballance of Trade, or that it would not lie on our ſide, which would certainly for the moſt part keep the Courſe of Exchange up to the Par.

3. A ſecond Rule may be, that the Government take Care that no Money be made or permitted to paſs Current, that is not according to the preſent Standard for Weight and Fineneſs, for it was on this Rock, of ſuffering baſe and clipt Money to paſs, that we had like to have ſplit in 1696, and which had miſerable Effects on Trade, and more particularly on the Courſe of Exchange.

4. A third Rule may be, that Embargoes be not laid on Shipping outward, unleſs upon extraordinary Occaſion.

5. A fourth Rule may be, that before any Commodity be prohibited or encouraged to be Exported or Imported, the moſt able and diſintereſted Merchants be conſulted, who are moſt likely to diſcern the Conſequences thereof, and that no Goods be prohibited, eſpecially Exportation, without abſolute Neceſſity.

6. That

6. That due Encouragement be given to Importation of Gold and Silver Bullion.

§. 5. *Concerning Intereſt of Money.*

Among the various Uſes of Money this of Lending at Intereſt is ſaid to be moſt unnatural, becauſe remoteſt from the Deſign of its firſt Inſtitution, which was for a Pledge in Buying, *&c.* but notwithſtanding that, it is certainly no leſs advantageous both to Lenders and Borrowers; nor is it accounted by any but Enthuſiaſtical Conceited Heads, a Uſe leſs warrantable than any other that is made of Money, Lending and Borrowing Money upon Intereſt, being a Thing practiſed under moſt, if not all the Governments in the Trading part of the World.

2. The two material Things inconſiderable in Borrowing and Leading Money at Intereſt (to ſay nothing of Securities) is,

1*ſt*, The Rate of Intereſt.

2*dly*, The Time of Payment.

The Rate of Intereſt is the Sum given for the Uſe of 100 *l.* for one Year, and this is in ſome Places more, in other leſs, which is generally proportioned to the Plenty or Scarcity of Money and Trade, or Dearneſs and Cheapneſs of Things: Thus in *Italy* and *Holland*, the Rate is 3 *l. per Cent*, in *Swedeland* 6; *France* 7; *Spain*, *Scotland* and *Barbadoes* 10; *Ireland* 12, and *Turkey* 20 *per Cent*, from which different Rates the ingenious Sir *Joſiah Child* makes many curious Remarks in his Diſcourſe concerning Trade, to which I refer the Reader that is inquiſitive after the Policy of theſe Matters, this Book being chiefly deſign'd for Practice; and as for the Rate in *England*, it is by a Statute made, *Anno Duodecimo*, *Annæ Reginæ*, not to exceed 5 *l. per Centum per Annum*, which becauſe ſome People are ignorant of, I ſhall inſert the Penalty in the Act mention'd, by way of Abſtract.

WHereas the leſſening and abating Intereſt has been found to tend to the Advancement of Trade and Improvement of Lands: And whereas the Burthen of the late Expenſive War has been chiefly born by the Owners of Land.—— And whereas by Reaſon of the great Intereſt of Money made at Home, the Foreign Trade of this Nation hath been of late Neglected.—— Be it therefore Enacted,

That all Bonds, Contracts, &c. *made after the 29th of* September, 1714. *for more than* 5 l. per Centum per Annum *Intereſt ſhall be Void. And that all Perſons who after that Time Take, Accept, or Receive, by Way or Means of any Corrupt Bargain, Loan, Exchange, Chevizance, Shift, or Intereſt of any Wares, Merchandize, or other Thing, or by any Deceitful Way or Conveyance for the forbearing, or giving Day of Payment for the whole Year, of and for their Money, or other Thing above the Sum of* 5 per Cent per Annum, *and in proportion for a greater or leſſer Sum, or for a longer or ſhorter Time, ſhall forfeit for any ſuch Offence the Treble Value of the Money, Wares,* &c. *ſo Lent, Bargained, Exchanged, or Shifted,* &c.

No Scrivener, Solliditor, Broker, &c. *ſhall after the ſaid 29th of* September, *take above* 5 s. per *Hundred Pounds for Procuring, nor above* 12 *Pence over and above the Stamp Duty, for Making or Renewing a Bond, under the Penalty of Forfeiting* 20 l. *with Coſt of Suit and half a Years Impriſonment, one half to the King, the other to the Proſecutor.*

Note, *The Act for* 6 l. per Cent, *was in Force from the Year* 1660, *or* 54 *Years.*

4. The Time at which the Intereſt of Money is payable, is uſually either Yearly, ½ Yearly or Quarterly; but when the Intereſt is payable Quarterly, it is more advantageous to the Lender and leſs to the Borrower, becauſe the Lender, tho' he receive but 6 Pound *per Cent per Annum*, yet if he receive 30 *s.* every Quarter, he has the Uſe of that 30 *s.* the 2d Quarter of *l.* 1 : 10 : — the 3d Quarter, and 4 *l.* 10 *s.* the 4th Quarter, which the Borrower would have had the Uſe of, had the Intereſt been but payable Yearly, which difference in the Times payable, make a difference in the Amount or Improvement of the Principal, as will farther appear by and by.

5. Intereſt is either Simple or Compound.

6. Simple Intereſt is the Intereſt of the Principal Money firſt put out to Intereſt; as if I put 100 *l.* for 2 Years to receive 6 *per Cent per Annum*, Simple Intereſt, the Principal will be 100 *l.* and the Intereſt 12 *l.*

7. Compound Intereſt is ſo called, becauſe the Intereſt payable ariſes from the Principal and Intereſt due thereupon jointly: As if I put out 100 *l.* for 2 Years, to receive 6 *l. per Cent per Annum*, according to the utmoſt Improvement, the Intereſt, as it becomes due being not received but forborn: In this Caſe

Case the 100 *l.* at the first Year's End will be augmented to 106 *l.* which 106 *l.* is my Principal for the 2d Year, and at the Determination thereof will be increased to 112 *l.* 7 *s.* 2½ *d.* which is 100 *l.* Principal, 12 *l.* for the 2 Years Simple Interest, and 7 *s.* 2½ *d.* the Interest of 6 Pounds my first Year's Interest, for the 2d Year.

8. As there is more Advantage to the Lender by receiving Compound Interest than Simple, so there is more Advantage when Interest forborn is payable half Yearly than Yearly: Thus 100 *l.* at Simple Interest, at 6 *l. per Cent per Annum*, will be 200 *l.* in 16 Years 8 Months: At Compound Interest it will be 200 *l.* in 11 Years 11 Months at the Rate aforesaid, or if forborn 7 Years it will be augmented to 150 *l.* 7 *s.* 3½ *d.* if the Interest was payable Yearly, but if half Yearly, the 100 *l.* in 7 Years will be encreased to 151 *l.* 5 *s.* 2 *d.*

Case 1.] When you would find the Simple Interest of any Sum for 1, 2, 3, 4, *&c.* Years.

Rule.] Make 100 *l.* the first Number in the *Golden Rule*, the Rate of Interest, or Interest of 100 *l.* the second Number, and the Sum given the third Number, and work as before taught in the Rule of direct Proportion; and having found the Interest for one Year, multiply it by the Number of Years, and you have the Answer.

Example.] What is the Simple Interest of 500 *l.* for three Years, at 6 *l. per Cent.*

100 : 6 :: 500
6

30.00 one Years Interest } Multiply
3 Years } Multiply

90.00 Pounds, Answer.

Example 2.] What is the Interest of 74 *l.* for seven Years Simple Interest, being computed at 3 *l. per Cent per Annum*?

l. *l.* *l.*
100 : 3 :: 74

2.22 *l.* = 1 Year's Interest for 74 *l.* } Multiply
7 Years } Multiply

l. *s.* *d.*
15.54 *l.* Answer, or 15 : 10 : 9½

Case 2.] When the Intereſt of any Sum is required for any Time leſs than a Year.

Rule.] Find the Intereſt of the Sum given for a Year, then ſay, if 365 Days require the Intereſt found, what Intereſt will the Days for which the Intereſt is to be computed require? Multiply and divide, and the Quotient is the Anſwer.

Example.] What is the Intereſt of 750 *l.* from the fifth of *June* to the firſt of *December* following, at 8 *l. per Cent per Annum?*

By an Inſtrument of 2 Circles I invented, or by your *Almanack*, or otherwiſe, you will find between the ſaid Times 178 Days. And that the Intereſt of 750 *l.* for 1 Year is 60 *l.* therefore ſay, if 365 Days require 60 *l.* what will 178 Days require? Multiply and divide for the Anſwer: See the Work.

100 : 8 :: 750
8

l. 60.00 The Intereſt for 365 Days.

Days. l. Days
365 : 60 :: 178
60

365) 10680.000 (29.260 *l.* or, 29 : 5 : 2$\frac{1}{5}$ Anſwer.

l. *s.* *d.*

A TABLE

A TABLE of Simple Intereſt at any uſual Rate, *Viz.* At 3, 5, 6 or 8 *l. per Cent per Annum*, from 1 *l.* to 1000 *l.* for one Day, and may likewiſe ſerve for a greater Sum, Number of Days, or Rate of Intereſt.

	3 *l. per C.*	5 *l. per C.*	6 *l. per C.*	8 *l. per C.*
l.	1 Day.	1 Day.	1 Day.	1 Day.
1	.0000821	.00013698	.00016438	.00021917
2	.0001642	.00027397	.00032876	.00043835
3	.0002463	.00041095	.00049315	.00065753
4	.0003284	.00054794	.00065753	.00087671
5	.0004105	.00068493	.00082191	.00109589
6	.0004926	.00082191	.00098629	.00131506
7	.0005747	.00095890	.00115068	.00153424
8	.0006568	.00109568	.00131506	.00175342
9	.0007389	.00123287	.00147944	.00197260
10	.0008219	.00136986	.00164383	.00219178
20	.0016438	.00273972	.00328766	.00438356
30	.0024657	.00410959	.00493149	.00657534
40	.0032876	.00547942	.00657532	.00876712
50	.0041095	.00685930	.00821915	.01095890
60	.0049314	.00821916	.00986298	.01315068
70	.0057533	.00958902	.01150681	.01334246
80	.0065752	.01095888	.01315064	.01753424
90	.0073971	.01232874	.01579447	.01972602
100	.0082191	.01369863	.01643835	.0219178
200	.0164382	.02739726	.03287670	.0438356
300	.0246573	.04109599	.04931505	.0657534
400	.0328764	.05479462	.06575340	.0876712
500	.0410955	.06849315	.08219175	.1095890
600	.0493146	.08219278	.09863010	.1315068
700	.0575337	.09589141	.11506845	.1534246
800	.0657528	.10959004	.13150680	.1753424
900	.0739719	.12028867	.14794515	.1972602
1000	.082191	.13698630	.16438356	.219178

Advertiſement.] They that do not underſtand Decimals may ſee my Index to Intereſt, where is the Intereſt at any Rate for any Time in Vulgar Numbers; and many other uſeful Matters, not elſewhere extant.

The

The Construction and Use of the foregoing Table.

The first Column toward the Left Hand, is the Sum of which you would know the Interest, the second is the Interest of any of those Sums for one Day, at 3 *l. per Cent per Annum*; the third is the Interest of any of those Sums for one Day, at 5 *l. per Cent per Annum*; the fourth the Interest for the same Time, at 6 *l. per Cent per Annum*; and the fifth at 8 *l. per Cent per Annum*, for one Day. The Use of which is thus:

Suppose I would know (as in the Example of the second Case foregoing) the Interest of 750 *l.* for 178 Days, at 8 *l. per Cent.*

Look in the Table against 700 *l.* and you will find under 8 *l. per Cent.* .1534246, which is the Interest of 700 *l.* for one Day, at 8 *l. per Cent*, and against 50 *l.* under 8 *l. per Cent*, you'll find .0109589, which is the Interest of 50 *l.* for one Day, at 8 *l. per Cent*, the Sum of which is .1643835, which multiply by the Number of Days your Sum is forborn (which in this Example is 178 Days) and the Product is the Answer; which in the Example aforesaid is 29.260 *l.* or 29 *l.* 5 *s.* 2½*d.*

Example 2.] Suppose I have bought Goods to the Value of 1000 *l.* for which I am to pay at the End of 6 Months by Contract; but a Week afterward I agree to pay the said Money presently, for which I am to have Rebate at 8 *l. per Cent*, how much Money must I pay?

In 6 Months wanting one Week, are 175 Days: Therefore multiply the Number in the Table, against 1000, under 8 *l. per Cent*, viz. .219178 by 175 Days, and the Product is 38.356 *l.* which I am to be abated of my 1000 *l.* and am therefore to pay but 961 *l.* 12 *s.* 10½*d.*

This by some is called *Discount*, and is often practised as it; but that is probable, because such Persons know not how *to find the true Discount: which is done thus* (as in the Example above, of 1000 for 175 Days.)

1*st*, As 365 Days to 8 *l.* So 175 Days to *l.*3.835616 the Interest of 100 *l.* for 175 Days.

2*dly*, Say: As 103.835616 (= 100 *l.* and the Interest thereof for 175 Days) is to 3.835616:: So is 1000 *l.* to *l.*36.939. Or, *l.*36:18:9¾ = the true Discount, which is *l.*1:8:4¾ nearer the Truth than the common Way of Deducting the Interest. But had this Question been done by the Table in Dr. *Harris*'s Lexicon, it would be found but *l.*35.515, which is too little by *l.*1:8:5¼.

.219178	
175	
1095890	
1534246	
219178	
38.356150	

Case 3.]

Caſe 3.] When you would find the Compound Intereſt of any Sum.

Rule.] Make 100 *l.* the firſt Number in the Rule of Proportion, 100 *l.* and its Intereſt for a Year the ſecond Number; and the Sum you would know the Intereſt of, the third Number; then multiply and divide, and the Quotient is the Principal given, and Intereſt required for one Year, which make the third Number in the Rule of Proportion; continuing the firſt and ſecond Number as before, *&c.* So that for every Year your Money is forborn, you have one Operation in the Rule of Proportion.

Example.] What is the Amount of 550 *l.* 10 *s.* for three Years Compound Intereſt, computed at 6 *l. per Cent per Annum?* See the Operation.

l.	*l.*	*l.*	
100 :	106 ::	550.5 :	
		106	
		33030	
		5505	
100 :	106 ::	583.530	The firſt Year's Amount
		106	
		350118	
		58353	
100 :	106 ::	618.5418	The ſecond Year's Amount
		106	
		37112508	
		6185418	
		655.654308	The Amount for three Years; or 655 *l.* 13 *s.* 1 *d.* which is the Anſwer.

Caſe 4.] When it is required to find the preſent Worth of any Sum of Money, due at the End of any Number of Years yet to come, Compound-Intereſt diſcounted at 6 *l. per Cent per Annum.*

Rule.]

Rule.] Say as 106 *l.* (the Principal and Intereſt of 100 *l.* for one Year) is in Proportion to the preſent Worth thereof; So is any Sum due a Year hence to the preſent Worth thereof. And ſo for any other Sum or Time.

Example.] What is the preſent Worth of 655 *l.* 13 *s.* 1 *d.* due at the End of 3 Years to come, Compound Intereſt diſcounted at 6 *per Cent per Annum?*

The Decimal of 13 *s.* 1 *d.* is .654308 *l.*

Therefore ſay, *l.* *l.*

106*l.* : 100 :: 655.654308

100 *l.*

106) 65565.430800 (618.5418 = the Worth at the end of 1 Year, which is the 3d Number in the next working.

196

905

574

443

190

848

0

2*dly.* Say, 106 : 100 :: 618.5418

100 *l.*

106) 61854.1800 (583.53 = the Worth at the end of two Years to come, which is the 3d Number in the next Operation.

885

374

561

318

0

3*dly.* Say, 106 : 100 :: 583.53

100 *l.*

106) 58353.00 (550.5 = the preſent Worth, due at the end of 3 Years, or the Anſwer, which is 550 : 10 : 00

535

530

0

There

There is a much briefer way of finding the Compound Intereſt, which is done for any Number of Years, at one Operation by Artificial Numbers, call'd *Logarithms* (as may be ſeen in my Index to Intereſt); but ſince that Kind of Arithmetick falls not within the Subject of this Book, which tends chiefly to accompliſh the young Merchant: and ſince Compound Intereſt is ſeldom either taken or given by great Traders, I ſhall therefore omit the former, and ſay no more of the latter.

§ 6. *Concerning Equating Time of Payment.*

When ſeveral Sums of Money are due at ſeveral Times, and the Debtor and Creditor agree to make but one Payment of the whole, it may be done without Loſs to either, by this *Rule.*] Multiply every Sum of Money by the Time it becometh Due, and Divide the Sum of the Products by the Total Debt, and the Quotient is the true Time, at which the Money ought all to be Paid.

Example.] Admit I have 1200 *l.* Owing me, to be paid at 4 ſeveral Payments, *viz.* 500 *l.* at two Months end, 500 *l.* at 6 Months, 200 *l.* at 10 Months, and 200 *l.* at 12 Months; the Queſtion is at what Time the whole may be paid at one Payment, without Wrong on either Side?

	l.		*Mon.*		*Products.*			
Diviſor 1200	500	×	2	=	1000	Dividend. 7200	*Month.* (6	= Quotient, or Anſwer.
	300	×	6	=	1800			
	200	×	10	=	2000			
	200	×	12	=	2400			

By the Work you ſee the whole Debt ought to be Paid at the end of ſix Months, which is the true equated Time.

Note, that (×) ſignifieth [Multiplied by] and (=) [equal to.]

§ 7. *Concerning Gain and Loſs in the Practice of Merchandice.*

Caſe 1.] When Goods are bought at any Rate, and you deſire to know how to Retail the ſame, ſo as to gain a certain Sum by the Sale.

Rule.] As the whole Quantity of the Goods bought,
Is in Proportion to the Total of the Sum given for the Goods, and the Sum propoſed to be gain'd;
So is any Part of the Commodity,
To a fourth Number, for which if you Sell the ſaid Part, you will Gain the Sum deſired by the Sale of the Whole.

Example.] Admit a Druggiſt Buyeth 158 Ounces of Black Ambergreece for 230 *l.* I demand how he may Sell the ſame (by the Ounce *Troy*) to Gain 50 *l.* by the Bargain? Say,

oz.	*l.*	oz.	*l.*	*l.*	*s.*	*d.*
158 :)	280 ::	1 :	(1.772 Anſwer,	or 1 :	15 :	$5\frac{1}{4}$ *per Ounce.*

280.000
....
1220
1140
340
24

Caſe 2.] When you would Gain a certain Sum *per cent.* by the Sale of any Commodity, to know how to Sell the ſame.

Rule.] Conſider what the whole Value of your Goods will Gain at your propoſed Rate *per cent. per Annum*; then Work as in the laſt Caſe.

Example.] A Furrier Buyeth 2100 lb of *New-England* Bever for 700 *l.* 14 *s.* how may he Sell the ſame *per* Pound, to Gain at the Rate of 20 *l. per cent.*

The

The Operation is thus performed.

l. l. l.
100 : 20 :: 700.7
20

140.140
700.7

840.84 ℔ :: 1.
840.84

84

0

l. s.
The propoſed Gain by 700 : 14
Add

℔ *Bever*
If 2100
2100 :)

℔ *Bever*
l. s. d. q.
(.4004 ℔ or 8 : 0 : ¼ *per* ℔ but 8 *s.* will anſwer your deſire, wanting only 6 *s.* 9 *d.* at the whole.

Caſe 3.] When Goods are Bought at a certain Price, and afterwards ſuſtain Damage, and muſt therefore be Sold at an under Rate, to know how to Sell the ſame, to Loſe a certain Sum.

Rule.] Firſt find the Value of the Goods at a Rate you gave for them, from which Deduct what you are willing to Loſe, and Work the Remainder in Proportion, as in the two laſt Caſes.

Example.] An Oylman Buyeth of a Merchant 2100 ℔ of *Weſtphalia* Ham, for which he gives 9 *d. per* Pound; but having ſuſtain'd Damage, he is willing to Loſe 8 *l.* 15 *s.* by the Sale, at what Price muſt he Sell the ſame to Loſe juſt that Sum?

The Value of the Hams by Practice is 78 *l.* 15 *s.*

l. s.
78 : 15
The Loſs 8 : 15 deduct.

2100 : 70 :: 1

¼ of 2100 at 9 *d.*

½ of that is = 52 *l.* 10 *s.*
is = 26 *l.* 5 } Add

Facit 78 *l.* 15 *s.* Sum

2100) 70.1000 (.033 *l.* Anſwer.

70

7

By the Work I find he muſt Sell for 8 *d. per* ℔

The laſt Queſtion is more briefly Reſolved thus:

If 2100 ℔ loſe 8.75 *l.* what will 1 ℔ loſe?

2100) 8.75 (.004 *l.* or 1 *d. per* Pound loſs.

3

So he muſt Sell it for 8 *d. per* ℔ as was taught before.

Caſe 4.] When Goods are Bought at one Price, and Sold for a greater, to be Paid at Time, to know what you Gain by 100 *l.* in a Year at that Rate.

Rule.] Say by the Double Rule of Direct Proportion foregoing. As the Price that your Goods (or any part) Coſt you, Is to the Gain by ſuch Goods, or part in the Time you Truſt the Buyer; So is 100 *l.* in 12 Months to the Sum Gained thereby for Anſwer,

Example.] A Merchant bought Logwood at 20 *s.* 6 *d. per* Hundred, ready Money, and Sold the ſame to a Dyer for 25 *s. per* Hundred, to be Paid at the end of ſix Months; the Queſtion is what he Gained at that Rate by a 100 *l.* in the Year. See the Work as by the Rule above.

s.

1 Hundred Coſt the Merchant 20.5

He Sold the ſame for 25.

His Gain by 1 Hundred = 4.5 Then ſay,

s.	*Mo.*	*s.*	*l.*	*Mo.*
If 20.5	: 6 :	45	: 100 :	12
6		4.5		
124.0		450.0		
		12		
		123) 5400.000		(43.902
				l. *s.* *d.*
				or 43 : 18 : 0½ *per Cent. per Annum*
		480		
		1110		
		300		
		54		

§ 2. *Con-*

§ 8. *Concerning Fellowſhip, or Trading in Company.*

Caſe 1.] When two or more Merchants make a common Stock, and by Trade Gain or Loſe a certain Sum; to know what each Gaineth or Loſeth in Proportion to his Share of the common Stock.

Rule.] Divide the whole Loſs or Gain by the whole Stock, and Multiply the Quotient by each Man's Share of the Stock, and the ſeveral Products are the reſpective Gain or Loſs of each particular Merchant.

Example.] Three Merchants make a common Stock of 16000 *l.* of which

7000 *l.* was put in by the firſt Merchant,
5000 *l.* by the ſecond; and
4000 *l.* by the third.

and by one Voyage they Gain 24000 *l.* what muſt each have in proportion to his Share?

7000 *l.*
5000 *l.*
4000 *l.*
——— *Gain.*

The whole Stock = 16000) 24000 (1.5 = the Multiplier.

80

0

l.		
7000	Multiplied by	10500 = the Profit of the 1ſt.
5000	1.5 produceth	7500 = of the 2d.
4000		6000 = of the 3d.

Sum = 24000 for proof

Caſe 2.] When ſeveral Merchants make a common Stock for a certain Time, and at the end thereof make a Dividend, to find each Man's Share of the Gain or Loſs, according to his Stock and Time.

Rule.

Rule.] Multiply each Man's Share in the common Stock, by the Time it continued therein, and proceed with the Products, as with the Shares in the laſt Caſe.

Example.] Two Merchants make a common Stock for twelve Months; the firſt put in 2500 *l.* for 8 Months, the ſecond put in 3000 *l.* for 12 Months, at the end whereof they make a Dividend of 1680 Pounds Gain; how much of that Gain ſhall each have in Proportion to his Stock and Time of Continuance?

l.	*Mo.*	*Products.*
2500	× 8	= 20000 +.
3000	× 12	= 36000 +.
		Gain divide
Sum = 56000)		1680 (.03
		00 remains

.03 Multiply'd by {20000 *l.* / 36000 *l.*} produceth { 600.00 the 1*ſt.* Gain'd. / 1080.00 the 2*d.* Gain'd. } *l.*

The Total Gain = 1680 for Proof.

I might have inſerted more of theſe and ſuch like Examples, but one being ſufficient to Explain a General Rule, I ſhall proceed to the next Chapter.

CHAP.

CHAP. X.

Treateth of Book-keeping by Debtor and Creditor.

HAving in the foregoing Chapters given the young Merchant the Grounds and Reaſons of Arithmetick, and Rules for Caſting up any thing that may occur in his daily Buſineſs; I come in this Chapter to ſhew him how to Place the ſame to Accompt; and that I may do it with all the Plainneſs I can, and in a few Words, I ſhall proceed to ſhew,

§. 1. The Explanation of Book-keeping, with the Books requiſite to be kept, and their Uſe.

The Method of keeping Books by way of Debtor and Creditor, or (as ſome call it) after the *Italian* manner, is ſo regular and preciſe, that at any Time the Merchant can be Reſolv'd what he Gaineth or Loſeth by every particular Perſon he Dealeth with, or Merchandize he Dealeth in, and conſequently what he is Worth to a Farthing. And for your Information, how theſe Books are Kept, take this

General Rule.

Any thing whatſoever is received either by the Merchant, or any way for his Accompt by his Servants, whether the ſame be Money or Wares: I ſay the thing ſo received, for, or upon his Accompt, is in the Journal and Ledger (which ſhall be ſpogen to by and by) made Debtor to the Perſon receiv'd from, or thing for which it is receiv'd.

Alſo every Thing whatſoever is deliver'd from the Merchant upon any Accompt, whether Money or Wares, the Thing ſo deliver'd by the Merchant, or any way for his Uſe or Accompt, is in the Journal and Ledger made Creditor, by the Perſon to whom, or Thing for which the ſame is deliver'd. My meaning in this Rule ſhall be fully made appear in all the uſual Caſes of a Merchant's Dealing, after I have ſhewed the Books neceſſary for Keeping Accompts after this Method, which are as followeth:

1. The

1. The **Waſte-Book** is that wherein every Thing is Entered, whether Bought, Sold, or Bartered; as alſo all Goods Shipp'd, Advice receiv'd of their Sale; Money Lent or Receiv'd at Intereſt, *&c.* (but not Money Receiv'd or Paid for Goods that were Sold or Bought at Time, or for petty Expences, *&c.* which I Enter'd in the Caſh-book, and Poſt it thence into the Ledger, which is ſufficient) together with the Time when, by the Day of the Month inſerted in the middle of the Page, with the Year of our Lord; and is of no farther Uſe, but only to remind the Book-keeper, that ſuch and ſuch Buſineſs is to be Poſted into the Journal, the Caſh being never Summed up in this Book, it being ſeveral Mens Accompts of Receipts and Payments Placed together Promiſcuouſly.

2. The **Journal** is a Book into which every Thing is Poſted out of the Waſte-Book, which is here to be made Debtor, and ought to be expreſſed in a better Stile or Phraſe of ſpeaking and fairly written more Merchant-like, it being, as it were, a Preparatory to the Ledger, whereby is ſhewed what Accompts are to be Entered Debtor therein, and to which Book Recourſe can only properly be had for the Particular of any Accompt ill Wrote or Worded in the Waſte-Book, or Enter'd but briefly in the Ledger, as all Accompts uſually are. In this Book the Day of the Month is alſo Placed in the middle of the Page, which is never Sum'd up, unleſs it contains only one Man's Accompts, for the Reaſon aforeſaid.

3. The **Ledger** is the chief Book of Accompts, and that in which all Accompts meet, and are placed Debtor on the Left-hand Page, and Creditor on the Right; ſo that the Folio's on the Right and Left-hand in this Book are Number'd alike; becauſe one and the ſame Accompt is Placed on both Sides. In this Book the Day of the Month is Placed in a narrow Column toward the Left-hand of the Page, and the Name of the Month to the Left hand the Day. At the Head of each Folio in this Book, is Written the Name of the City or Place where the Book are Kept, with the Year; all which you will ſee in the Example of theſe three Books, after the ſeveral Caſes. The Denomination of moſt of your Accompts to be Entered in this Book, are thus Ranked and Explained.

Firſt, Place your Account of Stock at the beginning of your Ledger, *viz.* Make Stock Debtor to what you Owe when you begin to Keep your Books, let the Debt be upon what Account ſoever, in theſe Words, on the Left-hand Folio, as it lieth before you.

Stock

Stock Debtor.

To ſundry Accompts, as *per* Inventory, ſo much as your Debts are, and firſt of all, having taken an Inventory of all you are worth in Caſh, Wares, or Debts, (as you ſee in the Inventory following) write on the Right-hand Folio the Sum of what you are worth, as appeareth by the Particulars in the Inventory, making Stock Creditor in theſe Words,

Par contra Creditor,

By ſundry Accompts, as *per* Inventory, mentioning the Value of all the Caſh, Wares, and Debts you have.

The next thing (on the ſame Folio) is the Accompt of Caſh, where Note, that before you enter any thing Debtor or Creditor in your Ledger, your are to look whether you have any thing of the ſame Denomination in your Inventory, which if you have, you muſt the firſt thing in the Accompt, make it Debtor to Stock for ſo much as in the Inventory of that Accompt, as ſuppoſe you have in ready Caſh at the time of taking your Inventory 2000 *l.* you muſt make, firſt,

Caſh Debtor,

To Stock ——— *l.* 2000 : 00 : 00

And afterwards make the ſame Accompt Debtor to ſundry Accompts, as *per* Caſh-bok. And the ſaid Perſons of whom you receiv'd, or Wares for which you receive Money, muſt be made in their own Accompt Creditor By Caſh, according to the general Rule foregoing, as ſhall be ſhewn in the Caſes following.

Next to the Accompt of Caſh in your Ledger, you may put what Accompt occurs in Practice: As the Accompt of any Perſon, of Wares, Voyages, *&c.* as,

When you Ship off Goods to your Factor, to be Sold for your Accompt, you are in this Book to keep an Accompt for the Voyage in a place by it ſelf, as you do the reſt, making *Voyage to ſuch a place, (mentioning the Port or Place your Factor reſideth at) conſigned to ſuch a Perſon (mentioning your Factor's Name) Debtor* to the Goods Shipped. To Cuſtom, Inſurance, and all other Charges on the ſame, and the contrary Accompts Creditor by Voyage.

When you have Advice that the Goods Shipt are Sold, then in ſome one place make *Factor at ſuch a place, my Accompt current Debtor* to Voyage; and the Voyage Creditor By the Accompt current, *&c.*

In this Book is alſo kept the Accompt of Profit and Loſs, by it ſelf thus:

Profit and Loſs Debtor,

To Caſh for what Money you pay and have nothing for it; as to Rebate of Money paid you before Due; To Abatement by Compoſition, when a Perſon is Inſolvent; To Houſhold Expences, Servants Wages, *&c.* And,

Per Contra Creditor,

By Caſh for all you receive, and deliver nothing for the ſame; as by Money received with an Apprentice; by Rebate for paying a Sum before due; for Legacy left you by a Friend, and by the Sum you Gain by every particular Commodity you deal in; By Ships in Company; by Voyages, *&c.*

4. The **Caſh-book** is that wherein you Enter all the Money you receive upon any Accompt, on the Left-hand Folio, making Caſh Debtor to the thing you receive it for, if it is receiv'd for Goods then Sold, but if not, To the Perſon you receive it from, as in the Example of a Caſh-Book, *&c.* and on the Right-hand Folio Enter all the Caſh you pay, Creditor By the Perſon you pay it to (mentioning whether it is in full or in Part) or thing you pay it for, if paid for Goods then Bought, and place the Day when you receive or pay it as in the Ledger, and once in a Month, or oftner, ſum up your Accompt of Caſh receiv'd and paid, carrying the Sum to the Accompt of Caſh in the Ledger, which Accompt, without this Book would ſwell too big, provided you ſhould Enter the Particulats there.

5. It is neceſſary you ſhould keep a Book to Enter all the Caſh which you Expend in Houſe-keeping, and once in a Month Transfer the ſame into the Creditar-ſide of the Caſh-Book, and then into the Debtor-ſide of the Ledger, thus:

Houſhold

Houſhold Expences, Debtor,

To Caſh, ſo much as are the Charges of Houſhold Expences; and Caſh is made Creditor, By Houſhold Expences in your Caſh-Book, for the Monthly Sum ſpent in Houſe-keeping, and brought from the Book of Houſhold Expences. In this Book 'tis likewiſe proper to Enter the Charge of Apparel, Rent of your Dwelling Houſe, Pocket-Expences, Servants-Wages, *&c.* as in the following Book of Houſhold Expences.

6. **A Book of Charges on Merchandize,** wherein you muſt Enter the Charge of Cuſtom, Freight, Ware-Houſe-Room, Poſtage of Letters, Porterage, Cartage, Warfage, Books of Accompts, *&c.* and once in a Month make a Sum, and transfer it into the Creditor-ſide of your Caſh-Book, making a Referr to the Folio of the Book of Charges of Merchandize; and alſo into the Debtor-ſide of the Account of Charges of Merchandize in your Ledger.

7. **A Book of Factories or Invoices,** Which is an Account of Goods ſhipt or ſent by you to your Factor, or receiv'd from him, *&c.* In this Book Enter the Goods ſent or ſhipt to be Sold for your Account, with the Value and Time when ſent, on the Left-hand Folio; and as you receive Advice of their Sale, Enter the ſame on the Right-hand Folio; ſo may you readily ſee how the Account ſtands in that Particular.

8. Beſides theſe Books, the Merchant ought to have a Book, wherein to Enter a Copy of all Letters he ſendeth or receiveth upon Account of Trade: Alſo,

9. A Pocket-Book, to take the Minutes of what Buſineſs he does Abroad, for the Eaſe of Memory, and to avoid Error.

10. A Bill-Book, or ſmall Book, wherein to Enter all Bills of Exchange the Merchant accepteth, with the Sum and Time when Payable, and to whom; or if foreign Bills, a Copy of the Bill; and as you Pay the ſame, write [*Paid*] in the Margin againſt the Bill Paid.

11. Laſtly, A Book of Receipts, wherein to take all Receipts for Money you pay; expreſſing firſt the Day of the Month, then the Sum receiv'd, and for what, or whether in full or in part, and for whoſe Uſe; which muſt be Sign'd by the Perſon receiving.

Thus have I given you an Account of all the Books neceſſary for a Merchant to keep, eſpecially if he is a great Dealer; alſo the Nature of the Account to be inſerted in each Book, and the Uſe thereof. I ſhall next proceed to give ſuch particular Directions as will enable the Book-Keeper to find proper Debtors and Creditors, for moſt, if not all the Caſes he will meet with in the Practice of Merchandize.

§ 2. *Sheweth how to Enter in your Ledger proper Accounts in Domeſtick Trade.*

Definition. PRoper Accounts in Domeſtick Buſineſs is, when the ſame is wholly managed by the Merchant, (or his Domeſtick Servants in Trade for himſelf, *&c.* not by Commiſſion;) as in the Caſes following.

Caſe 1. When Money is receiv'd for a Debt.
Rule [Caſh Debtor] to him for whoſe Account it was paid.
The Paying-man's Account, Creditor, By Caſh.

Caſe 2. When preſent Money is receiv'd for Wares.
Rule [Caſh Debtor] To the Wares Sold, the Sum receiv'd.
Goods Sold Creditor By Caſh for the ſame Sum.

Caſe 3. When Money is paid for Wares, preſently, as ſoon as bought.
Rule [Wares bought, Debtor] To Caſh for what paid.
Caſh Creditor, By Wares bought, in the ſame Sum.

Caſe 4. When I pay Money that was due formerly.
Rule [The Receiver's Account] Debtor to Caſh for what paid
Caſh Account, Creditor, by the Perſon receiving.

Caſe 5. When Money is taken at Intereſt.
Rule. [Caſh Debtor] to the Lending-man for the Principal I receive.
[Profit and Loſs] Debtor to the Lending-man for the Intereſt coming due to him.
The Lending-man Creditor, By ſundry Accounts, referring to the Folio's of Caſh, and Profit and Loſs.

Caſe 6. When Money is Let at Intereſt.
Rule. [The Borrowing-man] Debtor to ſundry Accounts, referring to the Folio's of Caſh, and Profit and Loſs.
Caſh Creditor By the Borrowing-man for the Principal Lent.
Profit and Loſs Creditor by the Borrowing-man for the Intereſt.

Caſe

Caſe 7. When Intereſt-Money is paid by me, and the Principal continued.

Rule. [Profit and Loſs] Debtor to Caſh for the Sum paid.
Caſh Creditor by Profit and Loſs for the ſame Sum.

Caſe 8. When Money is received by me for Intereſt, and the Principal continued.

Rule. [Caſh Debtor] to Profit and Loſs for the Intereſt receiv'd.
Profit and Loſs, Creditor, By Caſh for the ſame.

Caſe 9. When I receive Money by Aſſignation.

Rule. [Caſh Debtor] To the Aſſignor for the Sum receiv'd.
The Aſſignor Creditor By Caſh for the ſame Sum.

Caſe 10. When I ſatisfie a Debt by Aſſignment of another due to me.

Rule. [The Receiver Debtor] To him on whom the Aſſignment is charged.
He on whom the Aſſignment is charged Creditor By the Accepter.

Caſe 11. When I pay Money to any, by my Creditor's Aſſig-
Rule. nation. [The Aſſignor] Debtor to Caſh for the Sum paid (mentioning to whom).
Caſh Creditor By the Aſſignor for the ſame Sum, mentioning to whom paid, and by whoſe Aſſignation.

Caſe 12. When I received part of a Debt, and (by Compoſition) give a Diſcharge in full.

Rule. [Caſh Debtor] To the Payer for the Sum receiv'd.
Profit and Loſs Debtor to him for the Sum I abate by Compoſition.
The Paying-Man Creditor By ſundry Accounts, referring to the Folio's of Caſh and Profit and Loſs.

Caſe 13. When Wares are bought upon Time.

Rule. The [Wares bought Debtor] To the Seller for the Value of them.
The *Seller Creditor* by the Wares bought for the like Sum.

Caſe 14. When Wares are ſold upon Time.

Rule. The [*Buyer Debtor*] To the Wares ſold for their Value.
The Wares *Creditor* By the *Buying-man* for the ſame Sum.

Caſe 15. When Wares bought are to be paid for at ſeveral Payments.

Rule. The [Wares Debtor] To the Seller for their Value, (mentioning the ſeveral Days of Payment in the Journal.)
The Seller Creditor By the Wares for the like Sum.

Caſe 16.

Caſe 16. When Wares are bought part for ready Money, and part at Time.

Rule. The [Wares bought Debtor] To ſundry Accounts, (referring to the Account of Caſh, and the Seller's Account by their Folio's.

The Selling-Man Creditor By Wares bought ſo much as is left unpaid; and Caſh Creditor By Wares for ſo much paid Ready-Money.

Caſe 17. When ſundry Parcels of Wares are bought for Ready-Money.

Rule. The ſeveral and [reſpective Wares] muſt be made Debtor to Caſh for the Value it ſtands me in; and

Caſh Creditor By ſundry Accounts for the total Value, referring to the ſeveral Folio's where the ſeveral Wares ſtand Book'd in the Ledger.

Caſe 18. When ſeveral Parcels of Wares are ſold for Ready-

Rule. Money.

[Caſh Debtor] To ſundry Accounts (referring to the Folio's Where the ſeveral Wares Sold are entred in the Ledger) for their whole Value.

The reſpective Wares Creditor By Caſh.

Caſe 19. When Wares are ſold part for Ready-Money and part at Time.

Rule. The [Buyer Debtor] To Wares ſold, for the Sum unpaid.

[Caſh Debtor] To the Wares ſold for the Sum receiv'd in part.

Wares Creditor By ſundry Accounts (referring to the Accounts of the Buyer and Caſh) for the whole Sum for which the Wares are ſold.

Caſe 20. When Wares are bought at Time, and Book'd, and afterwards Ready-Money is paid upon Rebate.

Rule. The [Seller Debtor] To Caſh for the Sum paid him (deducting the Rebate.)

Caſh Creditor by the Seller for the ſame Sum.

The [Seller Debtor] To Profit and Loſs for the Rebate.

Profit and Loſs Creditor by the Seller for the ſame Sum.

Caſe 21. When Wares are ſold at Time, and Book'd, but Money receiv'd preſently after, for the ſame, allowing Re-

Rule. bate. [Caſh Debtor] To the Buyer for the Sum receiv'd upon Rebate.

The

The Buyer Creditor By Caſh for the ſame Sum.
[Profit and Loſs] Debtor to the Buyer for the Sum rebated.
The Buyer Creditor By Profit and Loſs for the ſame Sum.

Caſe 22. When Wares are bought, and part paid Ready-Money, part at Time, and the reſt by Aſſignation.

Rule. [Wares Debtor] To ſundry Accounts, the whole Value referring to the Folio's of the Seller's Account, Caſh and his whoſe Bill is aſſign'd.
The Seller Cr. by the Wares for ſo much as is yet unpaid.
Caſh Cr. by the Wares for ſo much as is paid in Caſh.
[Him whoſe Bill I have aſſign'd] Cr. by the Wares, ſo much as the Sum aſſigned is.

Caſe 23. When Wares are ſold for part Ready-Money, part by Aſſignation, and the reſt at Time.

Rule. [Caſh Dr.] To Wares, for the Sum receiv'd in part of the Buyer.
[The Perſon on whom the Aſſignment is made] Dr. To Wares, ſo much as is aſſign'd.
[The Buyer Dr.] To Wares for the Sum he left unpaid.
Wares Cr. By ſundry Accounts referring to the Folio's of Caſh, the Perſon to pay the Money aſſign'd, and the Buyer.

Caſe 24. When in Lieu of a Debt you receive Goods whoſe Value is more than your Debt, which Surplus is returned in Caſh immediately.

Rule. Make [Wares bought] Dr. To ſundry Accounts, *viz.* To the Seller for ſo much as his Debt was, referring to the Folio of the Seller's Account, and to Caſh for the Surplus. The Seller's Account Cr. By Wares, for the Sum paid him by Agreement.
Caſh Cr. By VVares for the Surplus paid.

Caſe 25 VVhen in Payment of a Debt you ſell Goods to your Cr. whoſe Value exceeding his Debt, he returneth you the Overplus.

Rule. The [Buyer Dr.] To VVares for ſo much as his Debt was. [Caſh Dr.] To VVares for the Overplus returned. VVares Cr. By ſundry Accounts referring to the Folio's of Caſh, and the Buyer's Account.

Caſe 26. VVhen VVares are bought in Barter for other VVares.

Rule. The [VVares bought Dr.] To the VVares ſold for the Value of the VVares ſold.

VVares

VVares ſold Cr. By VVares bought for the Value of thoſe bought.

Caſe 27. VVhen VVares are bought, part for VVares, and part for Ready-Money.

Rule. [VVares bought] Dr. To ſundry Accounts, referring to the Folio's of VVares ſold, and Caſh.

VVares ſold Cr. By the VVares bought for the Value of thoſe ſold.

Caſh Cr. By VVares bought for the Sum paid in Money.

Caſe 28. VVhen VVares are ſold for part VVares and part Ready-Money.

Rule. Make [VVares bought] Dr. To VVares ſold for what they coſt.

Caſh Dr. To VVares ſold for the Sum receiv'd.

VVares ſold Cr. By ſundry Accounts, referring to the Folio's of the VVares bought, and Caſh.

Caſe 29. VVhen you pay Money for part of a Ship.

Rule. [Ship] (naming her) Dr. To Caſh for the Sum paid, naming the Maſter, and what part you have bought.

Caſh Cr. By the Ship, the Sum paid, mentioning to whom.

§ 3. *Accounts proper in Foreign Trade.*

Definit. PRoper Accounts in Foreign Trade, is, when the Merchant ſendeth Goods beyond the Sea, to ſome Correſpondent, to be ſold for his Account.

Caſe 1. VVhen you Ship off VVares.

Rule. Make [Voyage to ſuch a Place] (mentioning the Place whither you ſend them) conſign'd to your Factor or Correſpondent (mentioning his Name) Dr. To the Wares ſhipp'd for their Value, naming the Ship and Maſter's Name.

Wares Cr. By Voyage To, *&c.*

Caſe 2. When you would enter Charges on Goods ſhipp'd off.

Rule. Make, [Voyage to the Place whither your Ship is bound Dr.] To Charges of Merchandize for the Sum paid on ——— (naming the Commodity.)

Charges of Merchandize Cr. By the Voyage for the ſame Sum.

Caſe 3. When Money is receiv'd upon Inſurance.

Rule.

Rule. Make [Caſh Dr.] To Inſurance-Account, Expreſſing what Sum you Inſure, to whom, and on what Account.
Inſurance Account Cr. By Caſh, *&c.*

Caſe 4. If the Goods you Inſure are loſt.

Rule. Make [Inſurance-Account] Dr. to the Perſon to whom you Inſured the Sum loſt.
The Perſon to whom you Inſure Cr. By Inſurance-Acct;

Caſe 5. When you pay Money for Inſurance.

Rule. Make [Inſurance Account Dr.] To Caſh for the Sum paid, (mentioning the Sum Inſured to you, by whom, And on what Account) and
Caſh Cr. By Inſurance Account, *&c.*

Caſe 6. If the Goods that are Inſured to you are loſt.

Rule. Make [the Perſon that Inſured Dr.] To Inſurance-Account the Sum Inſured, and
Inſurance-Account Cr. By the Perſon that Inſured to you.

Caſe 7. When you even the Accompt of Inſurance.

Rule. If the Sum on the Cr. ſide exceed that of the Dr. Make [Inſurance-Accompt Dr.] To Profit and Loſs for that Exceſs. But if the Dr. ſide exceed the Cr. Make [Profit and Loſs Dr.] to Inſurance-Accompt for that Exceſs, and in both Caſes *per Contra Creditor*——

Caſe 8. When you receive Advice from your Factor, that Goods formerly conſign'd to him are ſold——

Rule. [Factor at—(mentioning the place where he liveth at) my Account currant Dr.] To Voyage to ſuch a place, for the known Sale in Sterling Money, being the Neat proceed of Wares, as by his Account, ſold for ſo much foreign Coin (mentioning the Exchange) Then make Voyage to ſuch place, conſign'd to ſuch Perſon (mentioning your Factor's Name) Cr. By my Factor at ſuch Place my Accompt currant for ſo much Sterling Money as you know by his Account, the foreign Coin of the Neat proceed amounts to.

Note, That the Neat proceed is when the Charges of Cuſtom, bringing the Goods from on Board into the Ware-houſe, Proviſion, *&c.* is deducted from the Value the Goods are ſold for by a Factor.

Caſe 9. When Wares are bought upon time, and ſhip'd off before Entry in your Books.

Rule. Make [Voyage to ſuch a place conſign'd to ſuch a Perſon, Dr.] To the Selling-man, naming the Quantity, Price, and other Conditions of buying and ſhipping off. The Sellers Cr. By Voyage, *&c.*

Caſe 10. When Abatement is made by my Factor for Defect in Goods he formerly ſold.

Rule. Make [Profit and Loſs Dr.] To Factor at—my Accompt current (mentioning for what, and the Sum.) Then make Factor at ſuch a place my Accompt current Cr. By Profit and Loſs for ſuch Sum, *&c.*

Caſe 11. When Wares are bought for ready Money, and immediately ſhipp'd off before Entry.

Rule. Make [Voyage To——Dr.] To Caſh for the Value of the Goods ſhipp'd, mentioning the Names of the Wares, Quantity and Charges, till on Board, *&c.* Then Caſh Cr. By Voyage, *&c.*

Caſe 12. When you receive the unhappy News of your Goods being caſt away.

Rule. Make [Profit and Loſs Dr.] To Voyage to ſuch a place, conſign'd to ſuch a Perſon, *&c.* Then make Voyage Cr. By Profit and Loſs for the ſame Sum, *&c.*

Caſe 13. When I order my Factor beyond the Sea, to ſhip off Goods to another Factor in another Place.

Rule. [Voyage to ſuch a place conſign'd to my receiving Factor Dr.] To my ſending Factor, (mentioning their Names) my Account currant ſo much for ſuch a Commodity.

Then make my ſending Factor (mentioning his Name) at ſuch a Place my Account currant Cr. By Voyage to ſuch a Place conſign'd to my receiving Factor (naming his Name and Place) for the ſame Sum.

Caſe 14. When I receive the Content of a Bill here, and thereupon draw the ſame on my Factor, to pay the Order of him that paid me.

Rule. Make [Caſh Dr.] To my Factor at ſuch a Place my Accompt currant for ſo much Sterling received of ſuch a Perſon for my Bill drawn on *Ditto* Factor, payable by him to ſuch a Perſon, at ſuch a Time, ſo much foreign Coin, which at ſo much Exchange, makes Sterling ſo much. Then make Factor at ſuch a Place, my Accompt currant Cr. By Caſh, *&c.*

Caſe.

Caſe 15. When I receive Wares in Return from my Factor or Correſpondent.

Rule. Make [Wares received Dr.] To Factor at ſuch a Place, (who ſent the Wares) my Accompt currant ſo much as the Wares, Coſt and Charges, mentioning what they are, *&c.* Then Factor at ſuch a Place, my Accompt currant, Cr. By Wares received for their Value and Charges, *&c.*

Caſe 16. When I deliver a Bill here drawn upon my Factor beyond Sea, and receive not the Content till ſome Time after.

Rule. The [Perſon to whom I deliver my Bill Dr.] To Factor at ſuch a Place, my Accompt currant in ſo much Sterling for my Bill of ſo much foreign Coin drawn upon ſuch a Factor, payable at ſuch a Time, to ſuch a Perſon, or Order, the Exchange at ſo much Sterling, for ſo much foreign Coin, makes——

Factor at ſuch a Place my Accompt currant Cr. By the Perſon to whom I deliver my Bill.

Caſe 17. When I receive Money preſently, which is the Content of a Bill drawn on ſome Perſon here by my Factor.

Rule. [Caſh Dr.] To Factor at—(my Accompt currant) for ſo much received of ſuch a Perſon by Bill of Exchange payable at Sight, for the Value paid there, (*i. e.* beyond Sea by my Factor) to ſuch a Perſon.

Then Factor at—my Accompt currant Cr. By Caſh, *&c.*

Caſe 18. When I receive Advice that my Factor at one Place has drawn a Bill on my Factor at another Place.

Rule. Make [the drawing Factor my Accompt currant Dr.] To the paying Factor, my Accompt currant for ſo much foreign Coin drawn by——payable at ſuch a Time to ſuch a Perſon, ſo much foreign Coin, which at ſuch a Rate makes Sterling——

Then make the accepting Factor, my Accompt currant, mentioning both their Names, Sum, *&c.*

§. 4. *Factorage Accompts in Domeſtick Trade.*

Definit. THESE Accompts are when a Trade is managed by the Factor or his Servants for the Employer, whom the Factor ſerveth in Commiſſion.

Caſe 1. When a Factor receives Wares from his Employer.

Rule. Make [the Accompt of Goods for your Employer] Dr. To Caſh for ſo much paid Cuſtom, Freight, *&c.* at the Receipt.

Then make Caſh Cr. By Accompt of Goods, *&c.* ſo much as paid.

Caſe 2. When Wares received in Commiſſion by a Factor, are ſold for ready Money.

Rule. [Caſh Dr.] To Accompt of Goods for the Employer, the Sum received.

Then make Accompt of Goods for the Employer Cr. By Caſh the ſame Sum.

Caſe 3. When Commiſſion Wares are ſold by the Factor in Barter.

Rule. [Goods bought in Barter] Dr. To the Employer his Accompt of Wares.

[Accompt of Wares, *&c.* Cr. By Wares received the ſame Sum.

Caſe 4. When Wares in Commiſſion are ſold part for ready Money, and part at Time.

Rule. The [Buyer Dr.] To Accompt of Goods for Accompt of the Employer, the Sum left unpaid, Caſh Dr. To Accompt of Goods, *&c.* for the Sum received.

[Accompt of Goods for the Employer] Cr. By ſundry Accompts for the total Value of the Goods ſold, referring to the Folio's of the Accompts of the Buyer and Caſh.

Caſe 5. When Wares are ſent to an Employer in return with Charges in ſhipping off.

Rule. Make [Accompt of Wares for Accompt of the Owner (or your Employer naming his Name) his Accompt currant] Dr. To the Goods ſhipp'd, naming the Value and Goods, with the Ships and Maſters Name, *&c.*

Alſo the ſame Accompt Dr. To Caſh paid for Cuſtom and other Charges.

Then make Wares ſhipp'd Cr. By the Employer, his Accompt currant for the Value.

And Caſh Cr. By the ſame Accompt currant, for the Charges of ſhipping off.

Note. That if theſe Goods ſhipp'd were bought by Order, and on the Accompt of the Employer with ready Money, and not entred before in your Ledger. Make

Make [your Employer (naming his Name) his Accompt currant Dr. To Cash for the Value of the Goods and Charges of shipping.
And Cash Creditor *per contra.*

Case 6. When a Bill of Exchange is drawn on a Factor by his Employer, payable at Time.

Rule. Make [Employer at such a Place (as before) his Accompt currant] Dr. To whom the Bill is payable for the Content thereof.
Then make [him Cr. To whom the Bill is payable] (naming his Name) by your Employer his Accompt currant for the same Sum.

Note That if this Bill had been paid to Order of the Employer by the Factor presently, the Employer's Accompt currant must be made Dr. to Cash for the Sum paid (naming to whom) And Cash Cr. By the contrary for *ditto* Sum.
And the Entry is the same with this last, when the Factor remits ready Money to his Employer.

§. 5. *Factorage Accompt in Foreign Trade.*

Definit. THESE Accompts are when a Factor cannot carry on the Business of those whom he serves in Commission without Assistance of Foreign Correspondence, for whose returns he is accomptable to his Employer.

Case 1. When Goods sent to Sea are insured by me.

Rule. Make [Voyage to such a Place, for such a one's Accompt (the Employer consign'd to such a Factor Dr.] To Cash (if you paid the Insurance-Money presently) and Cash Cr. By Voyage, *&c.*
But if the Insurance-Money was not to be paid presently: Then [Voyage To, *&c.* Dr. To the Insurer.
And the Insurer Cr. By Voyage.

Case 2. When Goods are shipp'd by a Factor by Order of his Employer to his Factor in another Country.

Rule. Make [Voyage to such a Place for Accompt of your Employer consigned to your Factor (naming his Name) Dr. To [my Employer his Accompt of Wares] for Charges at the Receipt of the Goods.
And to Cash for Charges of shipping.

Then

Then make *per Contra* Cr. The Accompt of Wares, and Cash.

Case 3. When you receive Advice that the Wares are ſold which were formerly ſent to your Factor.

Rule. Make [Factor at ſuch a Place for Accompt of my Employer] Dr. To Voyage to ſuch a Place for *ditto* Accompt for the Neat proceed as by Advice.
Then make [Voyage to the ſame Place for Accompt of my Employer] Cr. By Factor at—for Accompt of my Employer.

Case 4. When you are to enter your Proviſion for Wares ſold on a Foreign Accompt.

Rule. Make [Voyage to ſuch a Place (where the Factor reſideth) for Accompt of my Employer] Dr. To Profit and Loſs, for ſo much as your Proviſion (or Money for your Employment amounteth to as by your Agreement.
Then make [Profit and Loſs Cr. By Voyage (to—— for Accompt of my Employer for the ſame Sum.

Case 5. When you receive Advice that your Factor hath made Abatement for Defects in Goods that he formerly ſold.

Rule. Make [Voyage to ſuch a Place for Accompt of my Employer] Dr. To Factor at ſuch a Place for Accompt of your Employer, ſo much as abated.
Then make [Factor (at ſuch a Place) for Accompt of my Employer] (at ſuch a Place Cr.) By Voyage to the Place your Factor liveth at) for Accompt of my Employer for the ſame Sum.

Note, That when you cloſe the Accompt of Wares ſold by your Factor with his Returns, *&c.* for Accompt of your Employer, you muſt make Voyage to your Factor, for Accompt of your Employer, Dr. [To your Employer's Accompt currant] for the Ballance thereof, and contrary Cr. By Voyage to ſuch a Place for Accompt of your Employer, for the ſame Sum.

§. 6. *Company Accompts.*

Definit. COmpany Accompts, is when a Stock is employed in common between ſeveral Merchants in the Way of Trade, and each Partner is to have a Share of the Gain, or bear a Share of the Loſs, in proportion to his Share in the Stock; as is taught in the Rules of Fellowſhip in the laſt Chapter.

Caſe.

Caſe 1. When Goods are bought and paid for by my ſelf, for Company Account.

Rule. Make [Wares in the Company between the Partner and me (naming our ſeveral Shares of the Stock) Debtor] To Caſh for the Value of the Goods, *&c.*

Caſh Cr. By Wares in Company between Partner and Me for the ſame Sum.

Then make [my Partner (naming his Name) his Accompt currant] Dr. To *ditto* Partner's Accompt in Company for his Share of the Stock.

And his Accompt in Company Cr. By his Accompt, and currant for the ſame Sum.

Note, That if the Goods were bought upon Truſt, the Entry is the ſame; if inſtead of [Caſh] you make the Goods Dr. To the [Seller] and him Cr. By the ſame.

Caſe 2. When I receive my Partner's Share of Caſh for the Goods bought in Company.

Rule. [Caſh Dr.] To my Partner his Accompt currant for the Sum he paid me.

[His Accompt currant] Cr. By Caſh for the ſame Sum.

Caſe 3. When you (having the management of the Accompt in Company) give an Aſſignment to a Cr. upon your Partner for his Share of Goods bought in Company.

Rule. Make [the Receiver Dr.] To [your Partner his Accompt currant] for the Sum in the Aſſignment.

And Partner's Accompt currant Cr. By the Demander for the ſame Sum ——

Caſe 4. When I receive Ready-Money for Goods ſold in Company.

Rule. Make [Caſh Dr.] To Wares in Company (always naming the Wares) between the Partner and Me (naming his Name and each of our Shares) for ſuch Goods ſold ſuch a Perſon, ſo much their Value.

And [Wares in Company between ſuch a One and Me] Cr. By Caſh for the ſame Sum.

Then make Partner's Accompt in Company] Dr. To his Accompt currant for his Share of the Caſh received.

And [Partner's Accompt currant Cr.] By his Accompt by me in Company for the ſame Sum.

Note, If theſe Wares had been ſold at time, the Entry had been much the ſame, if inſtead of making Caſh Dr.

To

To Wares in Company, you make the Buyer Dr. To the ſame Wares: And [Wares in Company Cr. By the Buyers, *&c.*

Caſe 5. When Goods are ſold in Company, part for Ready-Money, and part for Time.

Rule. Make Caſh Dr. To Wares in Company, between my Partner and me, for the Money received in part.

And the Buyer Dr. To the ſame Accompt for the Money left unpaid: Then make Wares in Company between my Partner and me, Cr. By ſundry Accompts (referring to the Folio's of Caſh) and the Buyer's Accompt for the whole Value of the Goods ſold.

2dly. [Make my Partner's Accompt in Company] Dr. To his Accompt currant, for his Share of the whole Value of the Wares ſold.

And my Partner's Accompt currant Cr. By his Accompt by me in Company for the ſame Sum.

Caſe 6. When I bring into Company Wares of my own, that are enter'd in my Ledger.

Rule. Make [Wares in Company (naming their Names) between my Partner and me] Dr. To Wares (naming their Name again) in the Sum you bring them into Company for, naming for what Quantity, Price, *&c.*

Then Make [Wares (as before enter'd in your Ledger] Cr. By the ſame Wares in Company between my Partner and me, for the Quantity brought into Company at ſuch a Price. *2dly*, Make Partner his Accompt currant Dr.] To my Partner's Accompt in Company for ſo much Goods brought into Company by me, of which his Share of the Price is ſo much.

Then make [Partner his Accompt in Company Cr.] By his Accompt currant for his ſaid Share——

Caſe 7. When Wares bought for Company Accompt and Booked, are Shipp'd off to be ſold for the ſame Companies

Rule. Accompt. Make [Voyage (to the Place whither the Ship is bound, naming the Factor the Wares are conſign'd to) in Company between my Partner and me] Dr. To Goods Shipp'd for their Value to Caſh for Charge of Shipping, ſo much as paid for that. Then make [Wares in Company between my Partner and me] Cr. By [Voyage in Company between us] for their Value. And [Caſh Cr.] By Charges of Shipping. *2dly*,

2dly, Make [my Partner his Accompt current Dr. To his Accompt in Company for his Share of the Charges of Shipping off. And

Ditto [Partner his Accompt in Company] Cr. By his Accompt current for the ſame Sum———

Caſe 8. When Wares are bought on Company Accompt to be paid for at Time, And are Shipt off (and Charges paid) before Entry.

Rule. Make [Voyage to ſuch a Place in Company between my Partner and Me, conſigned to our Factor] Dr. To the Selling-Man for the Value of the Wares, and to Caſh for the Charges of Shipping, *&c.*

Then make [the Seller Cr.] By Voyage to ſuch a Place, in Company between my Partner and Me conſigned to our Factor, for the Value of the Goods Shipp'd, And [Caſh Cr.] By Voyage in Company between my Partner and Me, conſign'd to our Factor at ſuch a Place, for the Charge till on Board.

2dly, Make [Partner his Accompt current] Dr. To *Ditto* Partner's Accompt in Company, for his Share of the Value of the Wares, and Charges till on Board.

And [his Accompt in Company] Cr. By his Accompt current for the ſame Share of the Value and Charges of Shipping.

Note. That if the Wares bought in this Caſe had been paid for in Ready-Money, the Entry would be the ſame, with this Difference only; That whereas firſt, Voyage in Company, *&c.* is made Dr. To the Seller, and He Cr. By Voyage, *&c.* you muſt make [Voyage in Company, *&c.*] Dr. To Caſh for the Value and Charges, And Caſh Cr. By Voyage, *&c.* for the ſame Sum.

Caſe 9. When I receive Advice that Wares for Company Accompt are Sold by our Factor,

Rule. [Factor at ſuch a Place, for Company Accompt between my Partner (ſo much of the Stock) and (ſo much) Me, our Accompt current Dr.] To Voyage to ſuch a Place in Company between my Partner and (Me naming our Shares) conſign'd to *Ditto* Factor for the Nett proceed as by Advice. And

[Voyage to ſuch a Place in Company between my Partner and Me (naming our Shares of the Stock) conſign'd to ſuch a Factor] Cr. By Factor at ſuch a Place for Company Accompt between my Partner and Me, our Accompt current for the ſaid Nett proceed.

Caſe 10. When I receive Advice that our Factor hath made Abatement for Defect in Goods Sold (between my Partner and Me) in Company.

Rule Make [Voyage to——in Company between my Partner and Me (naming our Shares always after the Name) conſigned to——(Factor) Dr.]

To *Ditto* Factor for Company Accompt between my Partner and Me, for the Abatement for the Defect.

Then [Factor at ſuch a Place for Company Accompt between my Partner and Me, our Accompt current] Cr. By Voyage to——in Company between my Partner and Me, for the ſame Sum abated.

Caſe 11. When Money is remitted to Me by our Factor, for Wares Sold, for Accompt of Company, and by Me received.

Rule. Make [Caſh Dr.] To Factor at——for Company Accompt between my Partner and Me, our Accompt current, for the Money received by Bill, and

Factor at——for Company Accompt, between my Partner and Me, our Accompt current] Cr. By Caſh for the ſame Sum——

Then make [my Partner's Accompt in Company Dr.] to *Ditto* Partner's Accompt current for his Share in the Money received. And

[My Partner's Accompt current Cr.] By Partner's Accompt in Company for the ſame Sum.

Note, That if this Money had been payable by Bill, at ſingle or double Uſance, *&c.* the Entry would differ little, only inſtead of making [Caſh Dr. To Factor, *&c.*] make his Accompt that accepteth the Bill, Dr. To Factor at——*&c.* and *per contra* Cr.

Caſe 12. When I receive Wares from our Factor, in return for Wares Sold by him for Company Accompt, and pay Charges for Freight, Cuſtom, *&c.* at Receipt thereof

Rule. Make [Wares received] Dr. To Factor at—for Company Accompt between my Partner and Me, our Account

count current for the Value of the Goods and Charges till on Board, as *per* Advice——ſo much.
And [Factor at—for Company Account between, *&c.* our Account current] Cr. By Wares received for the ſame Sum——
Then make [Wares received] Dr. To Caſh for the Sum paid at the Receipt for Cuſtom, *&c.*
And Caſh Cr. By Wares received for the ſame Sum.
Then to place the Account between my Partner and Me.
Make [my Partner's Account in Company] Dr. To his Account current for his Share, as *per* Invoyce of the Return. Deducting his Share of the Money you pay at the Receipt.
And [my Partner's Account current] Cr. By his Account by Me in Company for the ſame Sum.

Caſe 13. When I receive Advice that my Factor has Shipp'd off and conſign'd Wares to our Factor in another Country, for Company Account.

Rule. Make [Voyage to——conſign'd to our Factor for Company Account between my Partner and Me,] Dr. To Factor at——(*Viz.* my Factor that Shipp'd the Goods) my Account current for their Value and Charges, as *per* Advice of my Factor.
And my Factor (that Shipp'd the Goods) at—my Account current Cr. By Voyage to—(*Viz.* the Place our Factor reſideth at) conſign'd to our Factor, in Company between my Partner and Me, for the ſame Sum.
Then make [my Partner's Account current] Dr. To his Account in Company, for his Share of the Value and Charges. And
[My Partner's Account in Company Cr.] By his Account current for the ſame Sum——

Caſe 14. When Wares are returned by our Factor, to my Factor in another Country, for Wares ſold for Company, Account by our ſaid Factor.

Rule. [Voyage to ſuch a Place conſigned to my Factor] Dr. To (our) Factor at—for Account of Company between my Partner and Me, our Account current, for the Value of the Goods Shipp'd. And
(Our) Factor at—for Account of Company, between my

my Partner and Me, our Account current] Cr. By Voyage (to ſuch a Place) conſign'd to [my] Factor for the ſaid Value and Charges.

Then make [my Partner's Account in Company] Dr. To his Account current for his Proportion, as *per* Advice received of the Account.

His Account current Cr. By his Account in Company for the ſame Sum.

Caſe 15. When my Partner draws a Bill upon me payable at Sight. *Rule.* Make [Partner (naming his Name) his Account current] Dr. To Caſh for the Content of the Bill Paid. And Caſh Cr. By [my Partner's Account current] for the ſame Sum.

Caſe 16. When you cloſe an Account in Company, obſerve this *Rule.* Make [Wares, (*&c.*) in Company between my Partner] (naming his Share of the Stock, and ſo much me) Dr. To (ſundry Accounts, for cloſing the Account, *&c.* [To Profit and Loſs] for my Share of the Gain by Trading [To *Ditto*] for my Proviſion (or Employment) at ſo much *per Cent.* as by Agreement. And [Profit and Loſs] Cr. By the Sum, your Proviſion and Share of the Gain amounts to.

Then Wares, *&c.* in Company (as before) Dr. To my Partner's Account in Company for his Share of the Gain And, *&c.* [His Account in Company Cr.] By Wares in Company for the ſame Sum.

Company Accounts are generally eſteemed very difficult: But if a Perſon has a good Underſtanding in proper Accounts, and Factorage, he will find this very eaſy, there being little Difference more than this.

1. In the Title of an Account in Company, To take in your Partner's Name in Company, mentioning his and your Share of the Stock, *&c.*

2. After any Thing is bought, ſold, ſhipp'd off, receiv'd, *&c.* and Book'd as in a proper or Factorage Account (having reſpect to the Title of Company Account as aforeſaid) you muſt take Care to make your Partner or Partner's Account current Dr. To or Cr. By his Account in Company for what you lay out or receive for your Partner, which you will eaſily know how to do by the 16 Caſes foregoing.

§. 7. *The*

§. 7. *The Method of keeping the Waſte-Book Journal and Ledger.*

THE Waſte-Book of me *C. D.* of *London*, Merchant: Containing all my Dealings from the Firſt Day of *July*, 1694.

In the Name of God. Amen.

An Inventory taken *July* the firſt, containing all my Eſtate in Caſh, Wares, and Debts, which I have at this Day. And alſo what Debts are owing by me to others, *&c.*

			li.	s.	d.
My whole Eſtate this Day in Money, Wares and Debts is		3159 *l.* 10 *s.*			
(Viz.)		li. s. d.			
Imprimis. I have in ready Caſh		1540:00:00			
Item. I have Druggs, *viz.*	l. s. d.				
340 ℔ of Scammony at 10 *s. per* ℔	170:00:0				
565 ℔ of Opium at 6 *s. per* ℔	169:10:0				
105 *C.* Gallingale at 2 *l. per C.*	210:00:0				
		549:10:00			
Item. I have Raw Silk, *viz.*					
440 ℔ of *Tripoli* Belladine at 16 *s. per* ℔	352:00:0				
650 ℔ Legee of *Smirna* at 12 *s.* per ℔	390:00:0				
1090 ℔ in all		742:00:00			
Item. I have at *Aleppo*, conſign'd to *Gilbert Gainwell* my Factor there, theſe *Norwich* Wares remaining unſold, *viz.*					
18 Ser. Denims which coſt 6*l.* each,	108:00:0				
30 Grograms at 3 *l. per* piece	90:00:0				
40 Barateens at 3 *l.* 5 *s.* each	130:00:0				
88 Pieces in all, which coſt		328:00:00			
			3159	10	00
Item. I am indebted to ſeveral Perſons, *viz.*					
To *William Richards* due the 3d Inſtant		150:00:00			
To *Richard Nicholas* to Ballance his Accompt in my old *Ledger*		80:00:00			
To *Charles Rolling* due the 30th Inſtant		140:00:00			
To *Simon Thuynemans* due *Aug.* 3d		140:00:00			
			510	00	00

(The

(*The Method of the Entries in the Waſte-Book.*)

July 2. 1694.

Sold *George Higgs* 300 ℔ of Scammony for ready Money at 20 *s.* 6 *d. per* ℔ — li. 307 s. 10 d. 00

Ditto 10.

Bought of *Richard Nicholas* the *Norwich* Wares following, *viz.*

	li.	s.	d.
10 Grograms at 3 *l. per* piece	30	00	00
24 Barateens at 3 *l.* 6 *s. per* piece	79	04	00
34 pieces in all, amounting to	109	04	00

Of which I have paid 80 *l.* ready Money,
And the reſt, which is 29 *l.* 4 *s.* to be paid in 8 Days

Ditto 15.

Received Advice from *Gilbert Gainwell* my Factor at *Aleppo*, that he hath ſold to ſundry Perſons for my Accompt 60 pieces of *Norwich* Wares; the Nett proceed of which, as by the Particulars in his Accompt on the File, is 1500 Dollars, the Exchange at 4 *s.* 6 *d. per* Dollar makes Sterling — 337 10 00

Lent *George Higgs* the Sum of 500 *l.* for 3 Months, for which he is to pay me Intereſt at the rate of 8 *l. per Cent. per Annum*

So that the Money Lent (as entred in the *Caſh-Book*) is — 500

And the Intereſt thereof comes to — 10

Ditto 19.

Sold *William Short* the following Druggs, *viz.*

	l.	s.	d.
40 ℔ of Scammony at 21 *s. per* ℔	42	00	00
350 ℔ of Opium at 12 *s. per* ℔	210	00	00

390 ℔ in all for — 252

of which I have received 160 *l.* and the reſt which is 92 *l.* to be paid the 30th Inſtant.

(*The*

(*The Method of the Entries in the Waſte-Book.*)

July 20. 1694. *li. s. d.*

Received from my Factor *Gilbert Gainwell* at *Aleppo*, by my Order, and on my proper Accompt, 8 Cheſts of Myrrh, containing 30 *C.* Nett, which at 22 Dollars *per C.* comes to 660 Dollars, the Exchange, at 54 *d. per* Dollar makes Sterling——— 148 10 00

Richard Nicholas hath aſſigned the 80 *l.* due to him from me, for the Ballance of his Accompt in my old Ledger to *James Silver*, which I have paid to *ditto Silver* on Demand——— 80 00 00

Ditto 25.

Gilbert Gainwell Factor at *Aleppo*, hath remitted to me 600 Dollars payable here at double Uſance, by *Matthew Cleſſold*, for the Value delivered there to *Mahoat Fanezwar* the 1ſt of *April* laſt, the Exchange at 4 *s.* 8 *d. per* Dollar makes Sterling——— 140 00 00

Which Bill is accepted.

Ditto 30.

Sold Alderman *Ryley* Mercer, the following *Norwich* Wares, *viz.*

	li. s. d.
10 Grograms, at 3 *l.* 10 *s. per* piece———	35:00:00
24 Barateens, at 4 *l.* 4 *s. per* piece———	100:16:00
34 Pieces at———	135 16 00

For which he hath given me an Aſſignment on *Peter Paygood*, to be paid me in 8 Days, which I have accepted.

Sold *Simon Strut* the following Raw Silk for ready Money, *viz.*

	li. s. d.
350 ℔ of *Tripoli*-Belladine, at 30 *s. per* ℔	525:00:00
650 ℔ *Legee*, at 25 *s. per* ℔———	812:10:00
1000 ℔ in all, at———	1337 10 00

(*The*

(The Entry of the Inventory in the Journal.)

THE JOURNAL of me *C. D.* of *London*, Merchant: Containing all my Dealings from the First Day of *July*, 1694.

In the Name of God. Amen.

An Inventory taken the first of *July*, 1694. of my present Estate in Money, Wares, and Debts, this Day owing to me, and what Debts are owing by me, *&c.*

Fol. Ledger.

		li.	s.	d.
	Sundry Accompts are Dr. to Stock in the Sum of 3159 *l.* 10 *s.* for so much Cash, Wares, and			
1	Debt owing to me this Day, *viz.* *l. s. d.*			
1	Cash for so much in Chest ——— 1540:00:00			
2	Druggs, *viz.* *l. s. d.*			
1	340 ℔ of Scammony at 10 *s. per* ℔ 170:00:0			
	565 ℔ Opium at 6 *s. per* ℔ — 169:10:0			
	105 *C.* Gallingale at 2 *l. per C.* — 210:00:0			
	——— 549:10:00			
3	Raw Silk for 1090 ℔, *viz.*			
1	440 ℔ of *Tripoli* Belladine at 16 *s. per* ℔ ——— 352:00:0			
	650 ℔ Legee of *Smirna* at 12 *s.* ——— *per* ℔ ——— 390:00:0			
1	1090 in all at ——— 742:00:00			
1	Voyage to *Aleppo*, consigned to *Gilbert Gainwell* my Factor there, for *Norwich* Wares remaining yet unsold, *viz.*			
	18 Ser. Denims that cost 6 *l.* each, 108:00:0			
	30 Grograms at 3 *l. per* piece — 90:00:0			
	40 Barateens at 3 *l.* 5 *s.* each — 130:00:0			
	88 Pieces in all, which amounts to — 328:00:00			
	———	3159	10	00
	Stock is Debtor to sundry Accompts 510 *l.* Due to sundry Persons, *viz.*			
3	To *Will. Richards* due the 3d Instant — 150:00:00			
2	To *Richard Nicholas* for the Foot of his old Accompt ——— 80:00:00			
3	To *Charles Rolling* due the 30th Instant 140:00:00			
4	To *Simon Thuynemans* due *Aug.* 3d next — 140:00:00			
	———	510	00	00

The End of the Inventory. (*The*

(The Method of Journal Entries.)

July 2. 1694.

1 Cash Debtor to Druggs for 300 ℔ of Scammony
2 sold *George Higgs* for ready Money at 20*s.* 6*d.* *per* ℔ — 307 l. 10 s. 00 d.

Ditto 10.

1 *Norwich* Wares Debtor to sundry Accounts 109 *l.* 4 *s.* for 34 Pieces bought of *Rich. Nicholas*, viz.

	l.	*s.*	*d.*
10 Grograms at 3 *l.* *per* piece	30	00	00
24 Barateens at 3 *l.* 6 *s.* each	79	04	00
	109	04	00

1 To Cash paid *Ditto Nicholas* in part — 80:00:00
2 To *Ditto Nicholas*, to pay him the 25th. Instant — 29:04:00

Ditto 15.

1 *Gilbert Gainwell* at *Aleppo* my Account currant,
1 Debtor to Voyage to *Aleppo*, consign'd to *Ditto Gainwell* the Sum of 337 *l.* 10 *s.* for the Nett proceed of Wares sold, as *per* his Account for 1500 Dollars, the Exchange at 54 *d.* Sterling *per* Dollar makes English Coin — 337 l. 10 s. 00 d.

3 *George Higgs* Debtor to sundry Accounts the Sum of 510 *l.* for 500 *l.* lent him at Interest for 3 Months at 8 *l.* *per Cent.* *per Annum*, viz.

		l.	*s.*	*d.*
1	To Cash for the Principal lent	500	00	00
3	To Profit and Loss for the Interest	10	00	00
		510	00	00

Ditto 19.

2 Sundry Accounts Debtor to Druggs the Sum of 252 *l.* for 320 *l.* sold *W. Short*, as followeth,

	l.	*s.*	*d.*
40 ℔ of Scammony at 21 *s.* *per* ℔	42	00	00
350 ℔ of Opium at 12 *s.* *per* ℔	210	00	00
(*viz.*)	252	00	00

1 Cash for 160 *l.* received in part of *Ditto Short.*
2 *Ditto Short* Dr. 92 *l.* he is to pay me the 30th Inst.

The

(The Method of the Journal Entries.)

		li.	s.	d.
	July 20. 1694.			
2 1	Druggs Debtor to *Gilbert Gainwell* at *Aleppo* my Account currant, 148 *l.* 10 *s.* 00 *d.* for 8 Chests of Myrrh, peize Nett 30 *C.* at 22 Dollars *per Cent*, makes 660 Dollars, the Exchange at 54 *d.* *per* Dollar, is Sterling	148	10	00
2 1	*Richard Nicholas* Debtor to Cash the Sum of 80 *l.* being the Ballance of an Account due to him, which I have paid *James Silver* by Assignation of *Ditto Nicholas*	80	00	00
	Ditto 25.			
2 1	*Matthew Clefsold* Dr. to *Gilbert Gainwell* at *Aleppo*, my Account currant, 600 Dollars by Bill remitted to me by *ditto Gainwell* payable at double Usance for the Value delivered there, to *Mahout Jemmar*, the Exchange at 4 *s.* 8 *d.* *per* Dollar, is in English Coin	140	00	00
	Ditto 30.			
2 1	*Peter Paygood* Debtor to *Norwich* Wares the Sum of 135 *l.* 16 *s.* for 34 pieces sold Aldenman *Ryley*, viz.			
		li.	s.	d.
	10 Grograms at 3 *l.* 10 *s.* *per* piece	35	00	00
	24 Barateens at 4 *l.* 4 *s.* *per* piece	100	16	00
		135	16	00
	For which Sum *Ditto Paygood* hath given me his Bill payable in 8 Days by Assignation of *ditto Ryley*			
1 3	Cash Debtor to Raw Silk 2337 *l.* 10 *s.* for 1000 lb sold to *Simon Strutt* for Ready-Money, *viz.*			
		li.	s.	d.
	350 lb of *Tripoly* Ballad. at 30 *s.* *per* lb	525	00	00
	650 Legee at 25 *s.* *per* lb	812	10	00
	1000 lb at	1337	10	00

Here Ends the Journal. (The

(The Form of the Book of Houſehold Expences)

1694		*Houſehold Expences, Debtor.*	li.	s.	
July.	3	To *Caſh* paid *Daniel Dunmuch* for 1 Quarter's Rent of my Dwelling-Houſe, due at *Mid-ſummer*-Day laſt, in full	40	10	
	4	To *Caſh* for my Pocket-Expences	4		
	15	To *Caſh* paid my Wife for Apparel, *&c.*	50	14	
	30	To *Caſh* paid *Su. Sevenone*, the Houſekeeper, for this Month	50	4	6
	31	To *Caſh* for my Pocket-Expences	4		
		Carry'd to Caſh-Book, fol. 1.	149	8	6
		(See how this is Poſted into the Caſh-Book, Cr. ſide.)			

(The Form of the Book of Charges of Merchandize.)

1694		*Charges of Merchandize, Debtor.*	li.	s.	d.
July.	1	To *Caſh* paid *Lawrence Lovemoney* for a Quarter's Rent of my Warehouſe, due at *Mid-ſummer* Day laſt, and is in full	10		
	3	To *Caſh* paid for Poſt-Letters		10	
	10	To *Caſh* paid for *Ditto*		12	4
	20	To *Caſh* paid Freight of 8 Cheſts of Myrrh	70		
		To *Caſh* paid Cuſtom of *Ditto* Myrrh	10	14	
	21	To *Caſh* paid Wharfage, Crainage, *&c.* of *Ditto*, at 5 *d. per* Cheſt	—	3	4
		To *Caſh* paid Cartage of *Ditto* from the Key	—	6	
	31	To *Caſh* paid Porterage this Month	—	6	3
		To *Caſh* paid Demurrage	—	4	
		Entred in Caſh-Book, fol. 1	92	15	11
		(See how this Month's Charges of Merchandize is Poſted into the Caſh-Book, Cr. ſide.)			

(*The Form of the Cash-Book.*)

London, Anno Domini, 1694.

1694		*Cash Debtor.*	*li.*	*s.*	*d.*
July.	2	To Druggs for 300 lb of Scammony sold *George Higgs*	307	10	
	19	To *Ditto* received of *Will. Short* in part	169		
	30	To Raw Silk received of *Simon Strutt*	1337	10	
	31	To *William Short*, received in full	92		
		Carried to fol. 1. in the Ledger	1897		

See how this Month's Accompt of Cash received is Posted into the Accompt of Cash in the Ledger, Fol. (1.) *Dr. side.*

(*The Form of the Cash-Book.*)

London, Anno Domini, 1694.

1694		*Per Contra Creditor.*	li.	s.	d.
July.	8	By *W. Richards*, paid him in full	150		
	10	By *Norwich* Wares paid *R. Nicholas* in part	80		
	15	By *G. Higgs*, lent him at Intereſt for 3 Mon.	500		
	20	By *R. Nicholas*, paid *James Silver* by Aſſignation	80		
	25	By *Ditto Nicholas*, paid him in full	29	4	
	30	By *Charles Rolling*, paid him in full	140		
		By *Simon Thuynemans*, paid him in part	30		
	31	By Houſhold Expences this Month, from Fol. 1.	149	8	6
		By Charges on Merchandize this Month as on Fol. 1.	92	15	11
		Carried to Ledger, Fol. 1.	1251	8	5

See how this Month's Account of Caſh, paid is Poſted into the Account of Caſh in the Ledger, Creditor-ſide, Fol. (1.)

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

			Fo	*li.*	*s.*	*d.*
16		*Stock Debtor.*				
Ja.	1	To ſundry Accounts, as *per* Inventory	—	510		
		To Ballance	4	3546	—	01
				4056	—	01
		Caſh Debtor.				
	1	To Stock, then in Cheſt	1	1540		
	31	To ſundry Accounts, as *per* Caſh-Book, F. 1.	—	1897		
				3437		
1694		*Norwich Wares Debtor.* pc.				
July.	10	To ſundry Accounts for 34	1,2	109	04	
		To Profit and Loſs gain'd by this Account	3	26	12	
				135	16	
1694		*Voyage to Aleppo conſign'd to G. Gainwell, Dr.*				
July.	1	To Stock for Wares unſold	1	328		
		To Profit and Loſs gain'd by this Account	3	150	02	06
				478	02	06
1694		G. Gainwell, *my Account current Dr.*				
July.	15	To Voyage to *Aleppo* conſigned to *ditto Gainwell*	1	337	10	

(The Method of the Ledger Entries.)

London, Anno Domini, 1694.

1694			Fo	li.	s.	d.
		Per Contra Creditor.				
July.	1	By ſundry Accounts, as *per* Inventory	—	3159	10	
		By Profit and Loſs gained by 1 Mo. Trade	3	896	10	01
				4056		01
		Per Contra Creditor.				
1694						
July.	31	By ſundry Accounts, as *per* Cash-Book, F. 1.		1251	08	09
		By Ballance reſteth Caſh		2185	11	07
				3437		
		Per Contra Creditor.	pc.			
1694						
July.	30	By *Peter Paygood* for	34	135	16	
		Per Contra Creditor.				
1694						
July.	15	By *Gilbert Gainwell* my Account currant	1	337	10	
		By Ballance for Wares unſold	4	140	02	06
				478	02	06
		Per Contra Creditor.				
1694						
July.	20	By Druggs for 8 Cheſts of Myrrh	2	148	10	
		By *Matthew Clayfield*	2	140		
		By Ballance due to me	4	49		
				337	10	

(The Method of the Ledger Entries.)

London, Anno Domini, 1694.

1694						Fo	li.	s.	d.
July.	19	William Short, *Debtor.* To Druggs, due the 30th Inſtant				2	92		
1694		*Druggs Debtor.*		C.	lb				
July.	1	To Stock		105	905	1	549	10	
	20	To *G. Gainwell*, at *Aleppo*, my Account currant		30		1	148	10	
		To Profit and Loſs Gain'd				3	284	10	
							982	10	
1694		Richard Nicholas, *Debtor.*							
July.	20	To Caſh paid *James Silver* by Aſſignat.				1	80		
	25	To Caſh paid him in full				1	29	04	
							109	04	
1694		Matthew Creſſold, *Debtor.*							
July.	25	To *G. Gainwell* at *Aleppo*, my Account Cur.				1	140		
1694		Peter Paygood, *Debtor.*							
July.	30	To *Norwich* Wares for 34 pieces				1	135	16	

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		*Per Contra Creditor.*			Fo	*li.*	*s.*	*d*
July.	31	By Cash received in full			1	92	—	—
		Per Contra Creditor.	C	lb				
1694								
July.	2	By Cash from Scammony		300	1	307	10	
	19	By sundry Accounts		390	1,2	252	—	—
		By Ballance rests unsold, *viz.* 215 lb of Opium at 6 *s. per* lb 105 *C.* of Gallingale at 40 *s. per C.* and 30 *C.* of Myrrh at 4 *l.* 10 *s. per C.* which in all cost			4	423	—	—
						982	10	
1694		*Per Contra Creditor.*						
July.	1	By Stock			1	80	—	—
	10	By *Norwich* Wares, to pay the 25th Inst.			1	29	04	
						109	04	
1694		*Per Contra Creditor.*						
July.	31	By Ballance due to me			4	140	—	—
1694		*Per Contra Creditor.*						
July.	31	By Ballance due to me			4	135	16	

(*The Method of the Ledger-Entries.*)

London, Anno Domini, 1694.

1694		George Higgs, *Debtor.*	Fo	li.	s.	d.
July.	15	To ſundry Accounts for Prin. and Int.	1,3	510		
1694	31	*Profit and Loſs*, Debtor.				
July.	31	To Houſhold Expences	4	149	08	06
		To Charges on Merchandize	4	92	15	11
		To Stock gain'd by one Month's Trade	1	896	10	01
				1138	14	06
1694		Charles Rolling, *Debtor.*				
July.	30	To Caſh paid him in full	1	140		
1694		William Richards, *Debtor.*				
July.	3	To Caſh paid him in full	1	150		
1694		*Raw Silk*, Debtor.	lb			
July.	1	To Stock	1090	1	742	10
		To Profit and Loſs gain'd by this Account		3	667	10

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		*Per Contra Creditor.*	Fo	li.	s.	d.
July.	31	By Ballance due to me	4	510		
1694		*Per Contra Creditor.*				
July.	15	By *G. Higgs*, for Int. of 500*l.* due *Oct.* 15th,	3	10		
	31	By *Norwich* Wares gained thereby	1	26	12	
		By Voyage to *Aleppo*, gained thereby	1	150	02	06
		By Druggs gained thereby	2	284	10	
		By Raw Silk, gained thereby	3	667	10	
				1138	14	06
1694		*Per Contra Creditor.*				
July.	1	By Stock	1	140	—	—
1694		*Per Contra Creditor.*				
July.	1	By Stock	1	150	—	—
1694		*Per Contra Creditor.*		lb		
July.	30	By Cash	1	1000	1337	10
	31	By Ballance then rests unsold of *Tripoly* Belladine	4	90	0072	
					1409	10

(*The Method of the Ledger Entries.*)

London, Anno Domini, 1694.

1694		*Houſhold Expences, Debtor.*	Fo	*li.*	*s.*	*d.*
July.	31	To Caſh paid this Month	1	149	08	06
1694		*Charges on Merchandize, Debtor.*				
July.	31	To Caſh paid this Month	1	92	15	11
1694	30	Simon Thuynemans, *Debtor.*				
July.	31	To Caſh paid him in part	1	30	—	—
		To Ballance due to him	4	110		
				140		
1694						
July.	31	*Ballance Debtor.*				
		To Caſh reſteth therein this Day	1	2185	11	07
		To *Voyage to* Aleppo *conſign'd to G. Gainwell*	1	140	12	06
		To *G. Gainwell* at *Aleppo*, my Account Cur.	1	49		
		To Druggs reſts unſold, 215 ℔ of Opium at 6 *s. per* ℔; 105 *C.* of Gallingale at 40*s* and 30 *C.* of Myrrh at 4 *l.* 19 *s. per C.* which in all coſt	2	423	—	—
		To *Matthew Cleſſold*, for his Bill	2	140	—	—
		To *Peter Paygood*	2	135	16	—
		To *G. Higgs* for Principal and Intereſt	3	510	—	—
		To Raw Silk, for 90 ℔ of *Tripoli* Bellad. reſting unſold, which coſt	3	72	—	—
				3656	—	01

London, Anno Domini, 1694.

1694			Fo	li.	s.	d.
		Per Contra Creditor.				
July.	31	By Profit and Loſs	3	149	08	06
		Per Contra Creditor.				
July.	31	By Profit and Loſs	3	92	15	11
		Per Contra Creditor.				
July.	31	By Stock	1	140	—	—
		Per Contra Creditor.				
July.	31	By *Simon Thuynemans*, due *Aug.* 3.	4	110		
		By Stock	1	3546		01
				3656	—	01

Note, That the Tranſcript of the Debtor-ſide of the foregoing Ballance, will be an Inventory of your preſent Eſtate in Caſh, Wares, and Debts; and of Creditor-ſide (leaving out Stock) what you owe, by which you carry on a new Account.

Viz.

An Inventory taken *Auguſt* 1. 1694, of my preſent Eſtate in Caſh, Wares, and Debts due to me; and alſo of what Debts are owing by me to others, *&c. viz.*

	l.	*s.*	*d.*	
Imprimis, I have in ready Caſh	2185:	11:	07	
Item, I have at *Aleppo*, conſigned to *G. Gainwell*, *Norwich*. Wares remaining unſold, which coſt	140:	12:	06	
Item, *G. Gainwell* oweth me for Wares ſold by him, and their Value not returned to me	49:	00:	00	
Item, I have Druggs by me unſold, *viz.*				
Opium 215 ℔ at 6 *s. per* ℔	64:	10:	00	
Galling. 105 *C.* at 40*s. per C.*	210:	00:	00	
Myrrh 30 *C.* at 4*l.* 19*s. per C.*	148:	10:	00	
	423:	00:	00	
Item, *Matth. Cleſſold* oweth me upon Bill	140:	00:	00	
Item, *P. Peygood* oweth me by Aſſignat.	135:	16:	00	
Item, *G. Higgs* oweth me upon Bond—	510:	00:	00	
Item, I have Raw Silk unſold, *viz.* 90 ℔ of *Tripoli* Belladine, at 16 *s. per* ℔, coſt	72:	00:	00	
				3656: 00: 01

On the contrary, the Debts I owe are as follows.

Viz.

To *Simon Thuynemans*, due the 3d Inſtant — 110: 00: 00

To

To your Ledger you muſt have an Alphabet, for the ready finding every Account, whether Proper or Factorage, Domeſtick or Foreign, as Men, Wares, Voyages, Profit and Loſs, and Accounts currant, *&c.* the Method whereof let be thus; of having a Page (or as there is Occaſion) for each Letter:

Viz.

C.

. . . . *Caſh* —— Fol. 1

. . . . *Charges of Merchandize* —— 4

Matthew-Cleſſold —— 2

D.

. . . . *Druggs* —— 2

G.

Gilbert—Gainwell *my Account currant* 1

H.

George—Higgs —— 3

. . . . *Houſhold Expences* —— 4

N.

. . . . Notwich *Wares* —— 1

Richard-Nicholas —— 2

P.

Peter—Paygood —— 2

. . . . *Profit and Loſs* —— 3

R.

Charles—Rollings —— 3

William-Richards —— 3

. . . . *Raw Silk* —— 3

S.

. . . . *Stock* —— 1

William-Short —— 2

T.

Simon—Thuynemans —— 4

V.

. . . . *Voyage to* Aleppo, *conſign'd to* G. Gainwell —— 1

§. 8. *How*

§. 8. *How to Post an Account.*

What Posting an Account is, is shewed in the Dictionary following, and in the Method I have here laid down for Booking. Accounts are either Posted,

1. Out of the Waste-Book into the Journal; or,
2. Out of the Books of Houshold Expences and Charges of Merchandize into the Cash-Book; or,
3. And principally, out of the Journal and Cash-Book into the Ledger.

1. In Posting out of the Waste-Book into the Journal, you are to observe what is said in the Account given of the Journal, Chap. 10. to which I need add nothing, the Directions there, and Examples of the several Parcels in the foregoing Journal Posted out of the Waste-Book compared together, being sufficient to instruct the Learner how any Waste-Book Parcel is Posted into the Journal.

2. Whatever is paid on Account of House-keeping, *&c.* as is directed in the Account of the Book of Houshold Expences, Chap. 10. Or, on Account of Charges of Merchandize, as you will find at the beginning of the said Chap. must, when a Month (as *January*, *February*, &c.) is ended, be summ'd up, and entered on the Creditor-side of the Cash-Book, as you will see in the Examples of these Books foregoing, which will make it plain.

3. The chief and most considerable part of Posting is that of the Journal and Cash-Book into the Ledger, especially of the Journal; which, to make as plain as I can, take the following Example, by which you will know how to Post all the rest.

Example.] The 10th Day of *July* 1694, I find in the Journal *Norwich* Wares Debtor to sundry Accounts, to Post which into the Ledger, I first turn to the Ledger, to see what Folio is vacant, or has room on it, which I find the 1st; therefore I turn to the Alphabet, and on the Folio Letter (N) I write [*Norwich* Wares, Fol. 1.] as you see in the annext Alphabet; and then in the Ledger on Fol. 1. I enter, in a fair large Hand [*Norwich* Wares Dr.] in one Line, and under that the Month and Day; then [To sundry Accounts] which Accounts being Cash and *R. Nicholas*'s, the 1st entered on Fol. 1, the 2d on Fol. 2; I write Folio 1, 2, in the Line after [To sundry Accounts] as you see in the Example, and the same in the long Column in the Journal.

nal. And then I consider, That if *Norwich* Wares is Debtor to sundry Accounts, Fol. 1, 2, *viz.* To Cash and *R. Nicholas*'s, then it follows, that Cash and *R. Nicholas*'s Account must be Creditor By *Norwich* Wares; I therefore turn to *R. Nicholas*'s Account, which having before found to be on Fol. 2. I enter on the Creditor-side of his Account the Month and Day; then [By *Norwich* Wares] so much as left due to him, referring to the Folio on which *Norwich* Wares stands, *viz.* Fol. 1. which write likewise in the Journal against *Norwich* Wares. Then I should turn to Cash in the Ledger, and make that Creditor By *Norwich* Wares; but that being done in the Cash-Book, 'tis sufficient if at the end of the Month I make Cash Creditor in the Ledger By sundry Accounts for all the Money paid that Month, referring to the Folio in the Cash-Book, which that Sum is brought from: And likewise I make Cash in the (Ledger) Debtor to sundry Accounts for all the Money receiv'd that Month, as you see by the Cash-Book and Account of Cash in the Ledger foregoing: By this Example, and comparing the Entries in the several Books foregoing, you will easily know how to Post any Account.

But Note, That in all Accounts of Wares you must keep in a Column next the Left Hand of the Folio Column, the Pieces, Pounds, Yards, *&c.* bought of any Commodity, and likewise what is sold; so will you easily see how much of any sort of Goods remain unsold, without telling or numbering the same in the Warehouse; as in the Account of *Norwich* Wares, Druggs, and Raw Silk foregoing.

And when you have Posted your Journal, you must likewise Post your Cash-Book for that Month, or rather Post both together, taking the Days of the Month in due course; *i. e.* Where Cash is made Debtor to a Person for Money receiv'd, due formerly, and for which he is made Debtor in the Ledger; you must take Care to give such Persons Credit for the Cash paid, which Cash being only entered in the Cash-Book, you must therefore Post from the Cash-Book. And the like where Money is paid for any Debt, the Person to whom the Cash is paid must be charged Debtor to Cash, as you will see in the Cash-Book foregoing; Money received from *William Short*, *William Short* has Credit for it. And on the Creditor-side of the Cash-Book, *Richard Nicholas*, *Charles Rolling*, *William Richards*, *Simon Thuynemans*, Houshold Expences, and Charges of Merchandize, are

each made Debtor in their several Accounts in the Ledger, To Cash paid, referring to the Account of Cash in the Ledger, and in the Account of Cash in the Ledger, referring to the Folio of the Cash-Book, and entering that Folio in the Column of the Ledger-Folio. For your further Information (if any is needful) see the Cash-Book and the Account given thereof at the beginning of this Chapter.

§. 9. *Directions for Closing an Account.*

What Closing an Account is, is shewed in the Dictionary; and all Accounts are closed either,

1. With Profit and Loss; or,
2. With Ballance; or,
3. With Profit, and Loss, and Ballance; or,
4. With Stock.

1. All Accounts of Goods or Wares; where all that was bought is sold, are closed with Profit and Loss, which is entered on the Debtor-side of the Account (if you gain thereby) or on the Creditor-side if you lose; of this the Account of *Norwich* Wares, Folio 1. is an Example.

2. All Accounts of Men are closed with Ballance on the Debtor-side if I owe to them, as the Account of *Simon Thuynemans*, Folio 4; or on the Creditor-side if they are indebted to Me, as the Account of *Matthew Cleffold*, Folio 2.

3. All Accounts of Wares, where all that are bought are not sold, are closed with Profit, and Loss, and Ballance, *i. e.* with Profit and Loss on the Debtor-side for the Sum gained by what is sold, and with Ballance on the Creditor-side for what the Goods remaining unsold Cost; as in the Accounts of Druggs and Raw-Silk.

4. No Accounts are closed with Stock, but Profit, and Loss, and Ballance; as in the Example following.

§. 10. *How to Ballance your Books.*

Having shewed how to close any Account, it will not be difficult to Ballance either a single Account or your whole Ledger, in order to know how much Cash, Wares, and Debts you have; what Debts you owe, and what you have gained by Trading since your last general Ballance.

1. To

1. To Ballance any ſingle Account, Sum up the Debtor and Creditor-ſides, and put their Totals on a piece of waſte Paper, where take their difference, which is the Ballance, and muſt be entered on the Debtor or Creditor-ſide, as is Taught in Cloſing an Account; which done, the Sum of the Debtor and Creditor-ſides ſhall be equal.

But Note, That in an Account of Wares the ſaid Difference is Profit or Loſs, and muſt be entered on that ſide whoſe Sum is leaſt, to make the Sums of Dr. and Cr. ſides equal; as Taught before.

But to Ballance your Ledger for the end above-mentioned.

Rule.] Take a Sheet of Paper, and on one ſide write [*Ballance Debtor*] as you ſee in the foregoing Account of Ballance; and on the other ſide write *Per Contra Creditor*, as the Sheet lies extended before you.

2. Cloſe and Ballance all your particular Accounts beginning with Caſh, (except Stock, and Profit, and Loſs) which having done throughout your Ledger.

3. Begin again at the Account of Caſh, and where an Account is cloſed with Ballance, enter the ſame on the contrary ſide of the Account of Ballance in your Paper, as in the Account of Caſh foregoing [*Caſh* is *Creditor*] by Ballance 2185 *l.* 11 *s.* 7 *d.* therefore Ballance (on your Paper) muſt be made Dr. To Caſh 2185 *l.* 11 *s.* 7 *d.* ſo in the Account of *Simon Thuynemans* he is made Dr. To Ballance, and therefore Ballance muſt be made Cr. By *Simon Thuynemans.*

Likewiſe where an Account is cloſed with Profit and Loſs, enter the Ballance Sum on the contrary ſide of the Account of Profit and Loſs; as in the Account of *Norwich* Wares, which is cloſed Dr. To Profit and Loſs 26*l.* 12*s.* 00*d.* therefore Profit and Loſs muſt be Creditor by *Norwich* Wares, as you ſee in the Account of Profit and Loſs.

And where you meet with an Account cloſed both with Profit and Loſs, and Ballance, as that of [Voyage to *Aleppo*, conſign'd to *G. Gainwell*] is, becauſe Ballance is on Cr. ſide, make Ballance on your Paper, Dr. To Voyage to *Aleppo*, &c. 150 *l.* 12*s.* 6*d.* And becauſe the ſaid Account of Voyage, *&c.* is Dr. to Profit and Loſs, make the Account of Profit and Loſs Cr. for the like Sum, *viz.* 150 *l.* 12*s.* 6 *d.* And thus having guided you thro' the ſeveral Caſes that may happen, proceed with the reſt of the Accounts to the End of your Ledger (leaving Profit

and Loſs unclos'd, till you have clos'd and ballanc'd the reſt of the Accounts, except Stock, as before Taught; then

4. Cloſe the Account of Profit and Loſs with Dr. To or Cr. By Stock, and carry the Foot to the contrary ſide of the Account of Stock, as in the Example of the foregoing Account of Profit and Loſs cloſed with [Dr. To Stock 896 *l.* 10 *s.* 1 *d.*] Stock, muſt therefore be made Cr. By Profit and Loſs 896 *l.* 10 *s.* 1 *d.*

5. With the Difference of Dr. and Creditor-ſides of Ballance, *viz.* with Dr. To, or Cr. By Stock, cloſe the Account of Ballance, and carry the Foot to the Account of Stock; as in the foregoing Account of Ballance, it is ſo cloſed, Cr. By Stock 3546 *l.* 00 *s.* 01 *d.* therefore Stock muſt be Debtor to Ballance 3546 *l.* 00 *s.* 01 *d.*

6. *Laſtly*, Sum up the Dr. and Cr. ſides of the Account of Stock, and if they Ballance, or are alike, your Books have been kept right, otherwiſe you have committed ſome Error. For this is. (*A General Rule for Ballance.*)

Your preſent Stock and what you owed when you began the Account now ballanc'd, will be always equal to your Stock when you began your Accounts, and what you have gained ſince, to the Day the general Ballance is made. And the Reaſon of this is plain: For my former Stock and what I have gained ſince muſt be my preſent Stock; as in the Example foregoing of Stock, my former Nett Stock (Debts deducted) is 2649 *l.* 10 *s.* 00 *d.* and I have gained ſince, as appears by the Account of Profit and Loſs 896 *l.* 10 *s.* 01 *d.* the Sum of which is 3546 *l.* 00 *s.* 01 *d.* = my preſent Stock. But if (becauſe the Method of the Account of Stock requires it) I add my Groſs Stock when I began Trade to what I have ſince gained, the Sum will conſequently be juſt ſo much more than my preſent Nett Stock, as was the Sum I owed when I began Trade; which if I therefore add to my preſent Stock, the Sum muſt be equal to my former Groſs Stock and the Sum gained, as 'tis plain in the Example;

For if 2649 *l.* 10 *s.* — 510 *l.* + 896:10:01 be = 3546:00:01;

Then it follows,

That 3159 *l.* 10 *s.* + 896:10:01, is = 3546:00:01 + 510 *l.*

(*Note*, That (—) is leſs, (+) more, and (=) equal to.)

CHAP.

CHAP. XI.

Maxims for Young Merchants, concerning the Cuſtoms and Practice of Merchants, with reſpect. 1. *To Bills of Exchange.* 2. *To Factors and Factorage. Laws for Brokers, Brokerage, &c.*

§. 1. *Concerning Bills of Exchange.*

1. IN Drawing a Bill the Drawer ought to reſpect. 1. The Place where and Time when the Bill is Drawn, and in a Foreign Bill the Exchange agreed on. 2. The Time when the Content of the Bill is payable. 3. To whom. 4. The Sum to be paid. 5. The Exchange in Words at Length. 6. Of whom the Value is received. 7. To whoſe Account it is to be Placed. 8. The Drawer's Name. 9. A Direction thereof to him on whom the Bill is drawn; as you will ſee in the Example following, under Chap. 15.

2. Bills are either Foreign or Inland.

3. Inland Bills are ſuch as are Drawn and Payable in the ſame Country, which ought to be Payable a certain Time after Date.

4. A Bill Drawn to Pay at Sight, is Payable 3 Days after the Accepter firſt ſeeth it.

5. Inland Bills were never uſed to be Proteſted until an Act made for that purpoſe, 10 *W.* 3. which Act contains as follows.

1. *That the Value muſt be mention'd to be received*, and not omitted as it is the Cuſtom of moſt Drawers of Inland Bills.
2. *The Money muſt be Payable a certain Number of Days, Weeks, or Months after Date.*
3. *The Acceptance muſt be in the Accepter's Hand Writing*; not a Verbal Acceptance, as moſt of your *London* Shop-Keepers will only do.
4. *The Proteſt muſt not be made until* 3 *Days after the Bill is Payable.*
5. *The Proteſt muſt be returned to the Drawer within* 14 *Days after Proteſt is made.*
6. *If not returned in that Time, the Perſon Neglecting, to Pay all Coſt, Damage and Intereſt.*
7. *If any Bill be loſt within the Time limited for Payment, the Drawer ſhall be obliged to give another Bill of the ſame Tenure with the firſt, upon Security to indemnifie him in caſe the Bill ſo loſt ſhall be found again.*
8. *This Act extends not to Bills under* 5 *l.* no more than to ſuch as are not accepted in Writing, or thoſe that do not mention the Value received.

6. Foreign

6. Foreign Bills are ſuch as are drawn in one Country to be paid in another.

7. Foreign Bills are for the moſt part payable at ſingle, double or treble Uſance.

8. Uſance is the Space of Time between any Day of one Month, and the ſame Day of the next following, as from *January* the 4th to *Feb.* 4. *July* 4th to *Auguſt* 4, *&c.* when the Place where the Bill is drawn and that where it is payable, both compute their Time by one Style, as both by Old or both by New; except at ſome particular Places, where thro' Cuſtom Uſance is ſometimes more than a Month.

9. There is likewiſe a cuſtomary Allowance of certain Days after the ſingle, double, *&c.* Uſance, before a Bill is payable; and this more in one Country than another.

10. So that before it can be juſtly told when a Foreign Bill is due there are theſe Things to be conſidered.

1. What Uſance is eſteem'd with reſpect to ſeveral Countries.
2. What Places reckon their Time by old and what by new Stile.
3. What Days are allowed for Payment of a Bill in ſeveral Countries over and above their ſingle, double, *&c.* Uſance.

11. Uſance from *London* to and from *Middleburgh*, *Roterdam*, *Amſterdam*, *Antwerp*, *Bruges*, and other Parts of the *Low-countries*, is 1 Month after the Date of the Bill, double Uſance 2 Months, *&c.*

Uſance from *Venice* or *Florence* to *London* in 3 Months.

Uſance from *Lisbon* to *London* and *Antwerp* is 2 Months.

Uſance from *Hambourg* to *London* and *Contra* is 2 Months.

Uſance from *Antwerp* to *Rome* and *Venice* is 2 Months.

Uſance from *Genoa* to *Antwerp* is uſually 2 Months.

12. The Account of Time with reſpect to New and Old Stile are as follows.

Theſe Places reckon by New Stile.

Amſterdam, *Roterdam*, *Antwerp*, *Leyden*, *Harlem*, *Middleburgh*, *Ghent*, *Bruſſels*, *Brabant*, and moſt of the *Netherlands*: Alſo *Paris*, *Lyons*, *Marſeilles*, *Bourdeaux*, and all *France*; *Lisbon*, *O Porto*, *Cadiz*, *Bilboa*, and all the reſt of *Spain* and *Portugal*; all *Italy* and *Venice*: Alſo in *Germany* all the Popiſh Electors and Princes, *Ausburg*, *Lintz*, *Crembes*, *Wien*, *Dantzick* and all *Poland*.

Theſe Places reckon by Old Stile, which is 11 Days after the New.

England, *Scotland* and *Ireland*, all the Proteſtant Electors and Princes of *Germany*, *Copenhagen* and all *Denmark*; *Embden*, the Proteſtant Cantons of *Switzerland*, *Humburgh*, *Eaſt Friezland*, *Geneva*.

Geneva. All *Sweden*, *Holſtein*, *Lubeck*, *Straſbourg*; all *Saxony*, *Riga* and *Leypſick*.

13. The Time allowed in ſeveral Places for the Payment of Bills over and above the Time mentioned in the Bills, is,

		Days	
At	*Roterdam*	3	is allowed, according to Cuſtom, after the Time in the Bill.
	London	3	
	Paris	10	
	Roan	5	
	Hamburg	12	
	Antwerp	14	

14. If a Bill is payable at Uſance, it is payable 1 Month after the Date of the Bill. As if *A.* at *Amſterdam* drew a Bill on *L.* at *London*, payable at Uſance dated *March* the 2d; here I conſider that Uſance is 1 Month, *i. e. April* the 2d. But becauſe they reckon their Time by New Stile, or 11 Days before us at *London*, therefore I take 11 Days from *April* 2, and the Remainder is *March* 22, to which add the 3 Days of Grace according to the Cuſtom of *London*, and the Sum is *March* 25th, on which Day, before the Sun goes down, the Bill is due and payable by *L.*

15. A Merchant may deliberate 24 Hours before he needs to accept a Foreign Bill.

16. But if he refuſeth after 24 Hours Conſideration to accept that Bill, the Perſon to whom the Bill is payable may Proteſt it in the Office of Publick Notary.

17. Proteſts are uſually made (with relation to Foreign Bills) either
1. For Non-acceptance.
2. For better Security; or,
3. For Non-payment.

18. If the Perſon on whom a Foreign Bill is drawn refuſe to accept the ſame you muſt take a Publick Notary to be a Witneſs of the Refuſal (which is Noting a Bill) and proteſt againſt him for Non-acceptance; (the Form of a Proteſt you have in the Chapter following of Merchants Precedents: This muſt be done, as muſt all Proteſts, between Sun and Sun in the Day-time. And tho' the Merchant you proteſt againſt be not at Home, the Proteſt is nevertheleſs valid if done by a Sworn Publick Notary, at the Perſon's Houſe or Lodging on whom the Bill is drawn.

19. Proteſts are made for better Security when the Accepter of a Bill proves inſolvent, or of bad repute.

20. Af-

20. After theſe Proteſts are drawn on a piece of Paper under a Copy of the Bill, and entered in the Publick Notary's Books, the ſaid Proteſt and Copy of the Bill are returned to him that paid the Value, but not the Bill it ſelf, unleſs afterwards by expreſs Order of the Remitter.

21. Upon the Receipt of a Proteſt of a Bill the Perſon that paid the Value takes it, and goes to the Drawer to whom the Value was paid, who muſt give better Security if the Proteſt was made therefore; or if it was made for Non-acceptance, the Drawer muſt either give better Advice to the Perſon who formerly refuſed to accept the Bill, or elſe a new Bill on ſome other, together with Security for the payment of all Charges of Proteſt, *&c.*

22. If a Foreign Bill become due and is not paid, he to whom the Money is payable muſt proteſt for Non-payment, and return the Proteſt and a Copy of the Bill to the Deliverer of the Value, as before, who muſt demand the Money of the Drawer to whom the Value was paid, and of the Security if the Bill had been formerly proteſted for Non-acceptance or better Security. But if the Bill was accepted but not paid, then he that paid the Value upon Receipt of the Proteſt, may oblige the Perſon to whom the Value was paid, to give good Security for the ſpeedy Payment of the Principal Money, with all Charges, and upon Refuſal may recover the ſame at Law.

23. The Perſon to whom a Bill is payable muſt take Care to demand it on the very Day it becomes due.

24. The Charge of noting and proteſting Bills are as follows.

		s.	*d.*
For Noting a Foreign Bill	within the City	1	6
	without the City	2	6
For Proteſting a Foreign Bill	within the City	3	0
	without the City	5	0
	An Inland Bill		6

25. If any one pay a Bill of Exchange (as is too frequent upon Rebate, *&c.*) before it be due, and he to whom the Money is ſo paid proves Inſolvent, before the Time the Money is payable by the Bill, the Remitter upon Advice of his Friend's Inſolvency, orders the Money to be paid to ſome other, which not being done, he will recover great Damages of the Drawer and Accepter of the Bill, if not the whole Content thereof.

26. If a Bill of Exchange be left for Acceptance, as is common,

mon, at the requeſt of the Perſon on whom it is drawn, or his Servant; and if it be miſlaid or not to be found to return to the Preſenter in due time, when he ſhall demand the ſame, the perſon on whom it is drawn ſhall give him to whom it is payable his Note under his Hand and Seal to pay the Money according to the Bill, which if he refuſeth to do, the Perſon to whom the Money is payable may proteſt for Non-acceptance and Non-payment, as tho' he had the Bill; otherwiſe the Cuſtom of leaving Bills for Acceptance would be diſſolved, and the courſe of Trade greatly obſtructed.

27. If an accepted Foreign Bill be loſt by him to whom it is payable, he muſt in the preſence of a Publick Notary, ſignify, the ſame to the Acceptor, who when the Bill becomes payable ſhall pay the Money, notwithſtanding the Bill is loſt, upon Bond or other Writing given him to bear him harmleſs, or to be a ſufficient Voucher for the Payment of the Bill. But if the Acceptor deny to do this, he to whom the Money is payable may proteſt, when the Money is due, for Non-payment, and recover the ſame by due courſe of Law.

28. There can be no revoking an accepted Bill, but the Acceptor is become abſolute Debtor to him, to whom the Bill is payable for the Content thereof.

29. If the Perſon to whom a Bill is payable die before it be due, there muſt be demand made however of the Money on the Day it becometh due. And if upon offering good Security to ſave the Acceptor harmleſs from any Action, *&c.* of the Executors and Adminiſtrators of the Deceaſed he refuſe to pay, you muſt cauſe Proteſt to be made, as is common for Non-payment.

30. If the Party that accepted a Bill die before it become due, demand muſt be made of his Executors or Adminiſtrators on the Day the Bill is payable, and if they refuſe to pay the Bill, Proteſt muſt be made for Non-payment as if the Acceptor were living, and had refuſed to pay the ſame.

31. The Drawer of a Bill ought at the ſame time to give his Correſpondent a Letter of Advice, That he has drawn a Bill upon him, at ſuch a Time, for ſuch a Sum payable to ſuch a Perſon, where he muſt inſert the Sum payable both in Words at length and Figures, with other things, as mentioned in Article the firſt foregoing.

32. No one ought to pay a Bill without a Letter of Advice, nor any Sum by Letter of Advice, where a Bill is mentioned to be drawn, becauſe much Damage may enſue upon ſeveral Accounts.

33. If the Sum in Words at length and Figures in a Bill of Exchange do not agree, it is safeſt to take that Sum which agrees with the Letter of Advice, whether it be that in Figures or Words at length, becauſe it cannot be ſuppoſed two Miſtakes ſhould happen juſt alike, in writing a Sum 3 times, tho' one Miſtake may be very probable. But if the three Sums all differ in the Bill and Letter of Advice, the beſt way is to take that Sum for true which is in Words at length in the Bill, tho' the ſafeſt way is to ſend with all ſpeed to the Drawer for freſh Advice. For if he on whom the Bill is drawn refuſe to except it, there can no proteſt be made Becauſe the Sum is uncertain, tho' if the ſecond Bill be of the ſame Date with the firſt, there will be no time loſt to the Perſons to whom it is payable.

34. In drawing of Foreign Bills, it is uſual, and very proper to draw two or three of the ſame Tenor and Date, and to ſend them in ſo many ſeveral Letters of Advice, that in caſe one miſcarry, the courſe of Exchange and Trade may not be retarded or interrupted thereby. And in this the Drawer muſt be ſure to take care, if he draws 2 Bills, to ſay in the 2d Bill, at ſuch a time pay this my 2d Bill of Exchange [my firſt not paid.] Or if he draws 3 Bills, to ſay in the 2d [my firſt and 3d not paid, *&c.*] and in the firſt [my 2d and 3d not paid, *&c.*] and in the 3d [my 1ſt and 2d not paid unto, *&c.*] otherwiſe he on whom the Bills are drawn, might through a miſtake pay more than one of the Bills.

35. If a Bill be preſented for Acceptance, and he on whom it is drawn will accept it only to pay part of the Bill, or at a longer time than is limited in the Bill, the Perſon to whom it is payable muſt proteſt for Non-acceptance, as is before directed. But when the Bill becomes due, and the Payer is willing to pay part; ſuch part may receiv'd, and Receipt given for it on the backſide of the Bill, and Proteſt muſt be made for Non-payment of the Remainder.

36. The Acceptance of a Bill by a Wife or Servants, or any other, not having an Order in Writing under Hand and Seal ſo to do, from the Perſon on whom a Bill is drawn, is invalid, and is no legal Acceptance, unleſs it can be proved that ſuch Wife, Servant, *&c.* uſed to accept Bills for ſuch Perſon, the cuſtom of which will go a great way in making the Acceptance ſufficient.

37. Verbal Acceptance of a Foreign Bill is ſufficient, provided it be done before Witneſs. But the ſafeſt way is to cauſe him

him on whom the Bill is drawn, to underwrite the Bill in these Words [Accepted by me *A. B.*] Or if the Bill is drawn at so many Days sight, then the Acceptor must put the Time when he Accepts it, because on that depends the time of Payment, thus [Accepted *July* 4. 94. by me *A. B.*]

38. It is counted ridiculous among Merchants to say in a Bill of Exchange [*pray pay*, &c.] it being proper and Merchant like to say [*pay*, &c.] 1st. Because Bills of Exchange are to have such Honour and Respect as not to [*pray*]. 2d. Because Merchants being supposed Men of great Business, write only what is absolutely necessary, avoiding all Complements and superfluous Expressions. 3d. Because for the most part the Acceptor of a Bill has Effects in his Hands of the Drawer's equivalent to the Content of the Bill, which the Drawer may demand at Pleasure.

39. There are four Persons principally concerned in all Bills of Exchange. 1. The Remitter of the Money. 2. The Drawer or Indorser, who receives the Money, and gives his Bill for it to the Remitter. 3. The Person on whom this Bill is drawn; and 4. Him to whom it is payable. Of these the Remitter, and he to whom the Bill is payable, are Correspondents; and so the Drawer and he on whom the Bill is drawn: So that the Drawer is answerable for his Failure on whom the Bill is drawn; and he that paid the Value to him that is to receive it: And in default of Payment of a Bill, he to whom it is made payable certifieth the same to him of whom the Value was received, who presently takes his Course with the Drawer to whom the Value was paid, both for his Own and His Security to whom the Bill is payable; all which ought to be throughly considered, before you can have any tolerable Notion of the Mysteries of Exchange.

Obj. But some may say, That if the Person to whom a Bill is made payable, can recover his Money of the Acceptor by due course of Law without protesting, and not otherwise with protesting, to what purpose are Bills protested?

Answ. Because in case of Protesting, he to whom the Bill is payable has the Security of the Drawer, Acceptor, Indorsers, and him that paid the Value for his Money, and may Sue all or which he pleaseth by the Custom of Merchants; but he can only sue the Acceptor, and him that paid the Value, or if the Protest be not made.

40. If you pay a Debt with a Bill that is payable to you or Order, you must first write your Name on the backside of the

Bill, which is Aſſigning it, as practiſed among Traders. But if you pay a Debt with a Note payable to ſuch a one or Bearer, then you only deliver the Note. And it is Wiſdom in Bankers, *&c.* that pay part of a Bill or Note, to make the Indorſement croſs that part which is moſt wrote on, to avoid Deceit by taking off the Indorſement.

§ 2. *Concerning Factors, their Power, Duty, Commiſſions,* &c.

To make this Section Uſeful and Intelligible, it will be neceſſary to ſhew,

1. What a Factor is.
2. Commiſſion to a Factor.
3. The Power of a Factor.
4. The Duty of a Factor.
5. Factorage, or Proviſions due to Factors.
6. Factors, called Brokers, what they are, their Buſineſs and Proviſion due to them, according to Statute.

I. A Factor is one that is imploy'd to buy and ſell any kind of Merchandize for another, and differeth from a Servant in this; That whereas a Servant or Apprentice doth Buſineſs for a yearly Salary, or for nothing but his Charges, and ſerveth only his Maſter; a Factor doth Buſineſs for ſo much in every hundred Pounds worth of Goods he ſelleth or buyeth; which is called his Commiſſion or Proviſion (as ſhall be ſhewed by and by) and is employed for ſeveral Merchants or Traders at the ſame time, and is not their Servant but their Factor or Correſpondent.

II. Commiſſion to a Factor, is the Order or Condition given to him by his Employer, for buying or ſelling any Commodity, by which he is to Act.

All Commiſſions are either Abſolute or Limited.

1. An abſolute or perfect Commiſſion is when an Employer gives his Factor free Power to buy, ſell or barter a Commodity at Diſcretion, or as he thinks fit; in which Commiſſion are uſually theſe Words [*Buy (or Sell) ſuch a Commodity as the Market goes;*] or [*as to a Price I leave it wholy to you, and deſire you to act as for your ſelf.*]

But a limited Commiſſion doth bind or tye the Factor to a certain Price for the buying or ſelling any kind of Merchandize; in which Commiſſion are uſually theſe Words [*Buy (or ſell) ſuch a Commodity at ſo much, or if you cannot, let it alone.*] Or [*If you cannot ſell ſuch a Commodity, at ſuch a Price, keep it till further Order,*] And ſometimes the Word [*Commiſſion*] is uſed for [*Proviſion*] as above.

III. The

III. The Power of a Factor dependeth on his Commiſſion; and if he act contrary to that, he is liable for what Loſſes enſue thereby. Thus, if a Factor have a limited Commiſſion, which orders him to ſell Goods for ready Money, he has no Power to give any time, for if he does, and the Buyer proves Inſolvent, the Factor muſt be Reſponſible for the ſame to his Employer; but if this Factor had Order to give time, and in that time the buyer prove Inſolvent, the Factor having Obſerv'd his Commiſſion, the Loſs ſhall be his Employers. Or if a Factor have an abſolute Commiſſion to ſell Goods to whom and what time he thinks fit, then hath he the ſame Power with the Merchant or Employer, and is not anſwerable for any Loſs that may be the Conſequence of his Dealing, but hath likewiſe Power to make Compoſition with any one that breaks or proves Inſolvent, and to abate as much of a Debt due to his Employer as he pleaſeth, provided his Abatement is no more than the reſt of the Creditors have done.

IV. As to the Duty of a Factor, I ſhall ſhew it in moſt Caſes as briefly as I can; which is,

1. To be very exact in Obſerving his Commiſſion or Order of his Employer.

2. To be often adviſing the Riſe and Fall of the Commodities his Employer deals in, and what ſells beſt, and of the Courſe of Exchange.

3. To anſwer all Letters punctually and in time; but eſpecially,

4. A Factor is obliged to adviſe his Employer whenever he buyeth or ſelleth, ſhippeth off, or receiveth Goods: For if he ſells a parcel of Goods, and neglects to give Advice thereof, and in the mean time the buyer proveth Inſolvent, the Factor ſhall pay the Debt, altho' he had an abſolute Commiſſion as aforementioned; for no Man giveth Commiſſion to have his Goods ſold and not to know of it, tho' the Commiſſion be abſolute with Reſpect to the manner of Selling.

5. If a Factor (ſays *Malyns*) ſells Goods for his own account to another payable at time, and receiveth the ſame when it is due, and in the mean time letteth other Men's Money remain in that Man's Hand unpaid, for Goods by him formerly ſold; this Factor is to be anſwerable for that Money to thoſe other Men, altho' he ſhould never Recover a Penny of it, for he cannot without Fraud bear with the Non-payment of other Men's Money when due, and procure the Payment of his own.

6. If a Factor buy a Commodity according to Commiſſion, and afterwards the Price advanceth, and the Factor fraudulently converteth the Gain thereby to his own Uſe, the Merchant in this Caſe may recover Damages of his Factor, by the Cuſtom of Merchants upon Proof thereof.

7. If a Factor, by the Advice of his Employer, buy a Commodity with his Employer's Money, or by his Credit, and his Factor without Advice ſelleth the ſame again for his own Benefit, the Merchant ſhall recover this Gain of the Factor, and ſhall be moreover amerced for the ſame.

8. If a Factor ſell his Employer's Goods to a Man Diſcredited and that Buyer afterward breaketh before Payment, the Factor ſhall pay for the ſaid Goods, unleſs he can prove that he was ignorant of it, and that he truſted the Man for Goods of his own alſo.

2. If a Factor do by falſe Entry in the Cuſtom-Houſe conceal part of the Cuſtom, without advice of his Employer, whereby the Goods became forfeit to the Prince, the ſaid Factor ſhall anſwer the Value thereof to his Employer as they coſt, if for Goods to be Tranſported, or as they might have been ſold, if it be for Goods to be imported.

10. If a Factor or Merchent procure a Merchant Stranger Goods to pay but Engliſh Cuſtoms by ſaying they are his own; ſuch Factor or Merchant ſhall forfeit all his Good to the Queen.

11. If a Factor make any Return to his Employer for the Nett Proceed of Goods ſold, in prohibited Goods, without Commiſſion, the Factor ſhall bear the Loſs or Damage; but

12. If a Factor do any unlawful Act by Order of his Employer, the Employer ſhall make good the ſame, and the Factor ſhall pay treble Damage.

13. If a Factor be robb'd of his Employer's Goods, he ſhall bear the Loſs.

14. If a Factor buyeth Goods which afterwards become damnified by Accident, the Merchant or Employer ſhall bear the Loſs.

15. A Factor is only chargeable with the Money which he receives for Goods ſold by him, *&c.* but if any part prove falſe Coin or bad, he is to make it good.

16. If a Factor by Bill of Exchange maketh a Sum of Money payable to a Perſon, that breaks before the ſaid Bill is due to be paid; the Factor in this Caſe may and ought to countermand his Bill from the Acceptor, which if he have paid the broken Merchant before due, he is anſwerable for the ſame to the Factor.

17. If a

17. If a Factor have Orders from his Employer to assure Goods, *&c.* for a certain Voyage, and have Money in his hands sufficient to pay the *premium*; if this Factor neglect the same, and do not Insure, and the said Ship or Goods perish at Sea; the Factor shall be answerable for the Damage to his Employer, unless he give very undeniable Reason why he did not Insure.

18. If a Factor, having made Assurance upon Goods, *&c.* which happen to be lost, and the Factor having no Order, *Libra* (or Commission to act at Discretion) maketh Composition with the Assurors, he shall be answerable to his Employer for what Abatements he maketh as well as for the rest that was Assured.

19. If a Factor do wrong to a Merchant by Error in Accounts, he is to make good the same, not only the Principal, but also of the Interest thereof; and the contrary, if the Factor happen to wrong himself by not charging the Merchant, and it is therefore usual for all Factors in their Account of Sales or Invoyces, to write at the Foot of the Account [*Errors Excepted.*]

20. Captains of Ships, *&c.* who do wilfully destroy any Ship, shall suffer Death, by a Statute of Queen *Ann.*

V. Factorage Provision or Commission is the Wages of a Factor, and is so much to the Factor for every hundred Pounds Value of the Proceed of Goods bought or sold by the said Factor, which Provision is usually more or less, according to the distance of the Factory or Place of Trade; thus,

A Merchant at *London* alloweth his Factor.

	l. per C.	
At *Barbadoes* and most other parts of the *West-Indies.*	5	Commission for buying and as much for selling.
At *Smirna* or *Aleppo* and other parts of *Turky.*	3	
At *Legborn* and other parts of *Italy.*	2½	
Spain, *Portugal* or *France.*	2	
Hamburgh and other parts of the *East-land.*	2	
Rotterdam and other parts of the Provinces.	1½	
Inland Factors have usually	1¼	

Which Factorage or Commission Money is inserted among the other Charges the Factor has been at concerning his Employer's Goods, as Warehouse Room, Brokage, Wharfage, Custom, *&c.*

and

and being deducted out of the total Sum the Factor ſold his Employer's Goods for, the Remainder is called the Nett proceed of the Account.

VI. Brokers are as kind of Factors, there being Brokers for almoſt all kind of Traders, who are uſually decay'd Merchants or Men that know their Trade well, but perhaps have not a Stock to ſet up to trade themſelves, having great Acquaintance, they are employ'd by Merchants to bring Cuſtomers to buy their Merchandize, for which the Merchants uſually allow the Brokers about half *per Cent.* Theſe Men are moſtly of known Integrity, and upon the Brokers Word, the Merchants often give the Buyers Credit for many hundred pounds worth of Gold.

There are alſo other kind of Brokers, *viz.* Exchange-Brokers, and Brokers of Stock.

Exchange-Brokers make it their Buſineſs to know the Alteration of the Courſe of Exchange, and to inform Merchants that have Money to Receive or Pay beyond Sea, who are proper Perſons for exchanging or doing thereof; as if I have 100 *l.* Sterling to be paid at *Rotterdam*, &c. the Exchange-Broker finds me out a Man to whom if I pay the Money here, will give me his Bill drawn upon his Correſpondent to pay the like Sum there to my Factor or Order. Or if I have 1000 *l.* to receive here from my Factor at *Hamburgh*, &c. this Broker will find me out a Perſon that will pay me the Money here, on Condition of my Bill drawn on my Factor to pay the like Sum in *Flemiſh* Money to his Correſpondent there; for which he has Brokage (as alſo to other places) 2 *s. per* hundred Pound Sterling.

Brokers of Stock are ſuch as buy and ſell Shares in Joint Stocks for any one that ſhall deſire them; as if I am minded to buy two Shares in the *Eaſt-India* Stock, I ſpeak to a Broker if he knows of any to ſell, he enquires and find one that will ſell two Shares, which the Broker buyeth for me at the Price currant on the Exchange, and when the ſame are transferred to me in the Company's Book, I pay for them. And it has been uſual to give theſe Brokers for their Brokage or Proviſion as followeth.

	l.	*s.*	*d.*	
For *Hudſon's-Bay* Stock	01	00	00	*per* Share.
Eaſt India	00	10	00	
Africa Stock, or other petty Stocks, as Glaſs, Lead, Linnen, Copper, *&c.*	00	05	00	

And at this Rate there are ſome have got 1000 or 1500 *l. per An.*

But

But now the number of Brokers and their Brokage are limited by a Statute made *Anno* 8. and 9. *Will.* III. and *Rev.* 11. and 12. *W.* III. for 7 Years from *Michael.* 1700, and since Reviv'd, which being requisite to be known both by Brokers, Merchants, and other Traders, I have inserted the Heads thereof, as follows.

1. *No Person shall follow the Employment of a Broker, nor act as such within the Bills of Mortality of the City of* London, *until he be admitted by the Lord-Mayor and Aldermen of the said City.*

2. *All Brokers shall at their Admittance take an Oath truly and faithfully to perform that Office between Party and Party without Fraud or Collusion, according to this Act.*

3. *All Brokers within* 3 *Months after such Admittance, shall take the Oath of Allegiance and Supremacy, as by the Statute* 1 W. *and* M. *and shall sign the Association appointed by an Act* 7 W. III. *and shall enter into a Bond to the Lord Mayor, Citizens and Commonalty, of the Penalty of* 500 l. *(the Condition to which, as in this Act verbatim it expressed, you will find in the Chapter of Precedents following.*

4. *The Number of these Brokers (including all sorts before mentioned,* viz. *Exchange, Trade, and Stock-Brokers) are not to exceed* 100.

5. *The Fees paid by a Broker at his Admittance shall not exceed* 40 *Shillings.*

6. *The Names of the Brokers admitted, shall be affix'd on the* Royal-Exchange, Guild-Hall, *and other publick places, as the Lord Mayor,* &c. *shall think fit.*

7. *Any one using the Trade or Employment of a Broker, who is not legally admitted, shall forfeit* 500 l. *over and above all other forfeitures by this Act.*

8. *And if any Person employ any Broker that is not thus legally sworn and admitted, such Person shall forfeit* 50 l.

9. *And if any Person not being a sworn Broker, according to the true intent and meaning of this Act, shall deal as a Broker in discounting Tallies, Exchequer Bills, or Bank Bills or Notes, or in Stock-jobbing, or selling of Bank-Stock, or to any other Interest or Security upon any Fund granted by Parliament: Such Person offending shall forfeit* 500 l. *and being legally convicted shall stand in the Pillory* 3 *several Days, one Hour in the Morning of each Day.*

10 *Every sworn Broker admitted as aforesaid, shall keep a Book, which shall be called the* Broker's-Book, *wherein shall be fairly entered all Contracts and Bargains, within* 3 *Days after making thereof, therein inserting the Buyer and seller's Names, to the end such Book may be*

ſorts of Ironmongers Wares, Tallow, Hides, Oyls, Hops, Butter, Cheeſe, Honey, Wax, Glew, Salt-petre, Gun-powder, Tobacco-pipe, Brick, Lyme, Slate, Marble, Alabaſter, and other Stones little inferiour to Diamonds; Salt, Soap, Pataſhes, Glaſs, and Saffron the beſt in the World; Sea-Coal, and *Scots* Coal, in the *North* called *Cannel*; Liquors of Malt and Apples, *&c.* As Beer, Ale, Syder, Perry, Metheglin, Brandy, Mum, alſo Mead beſides ſeveral ſorts of Wines not much inferiour to thoſe of *Spain* and *France*, as Elderberry, Strawberry, Gooſeberry, Rasberry, and many others. It containeth 38 Counties of *England*, 16 Counties of *Wales*, and 35 of *Scotland*, Chief City *London*; and of Trade, *London*, *Briſtol*, *Leverpool*, *Newcaſtle*, *Hull*, *Plymouth*, and *Norwich* in *England*; *Edinburgh*, *Aberdeen*, St. *Andrews*, *Glaſcow* and *Lieth* in *Scotland*.

2. Ireland *produces theſe Commodities*

Wool, Yarn, (excellent good) Flax, Linnen-Cloth, Furrs, Hides, Tallow, Hemp, Honey, Wax, Herrings, and many other ſorts of Fiſh, Frizes, Rugs, Salt-Beef, Pipe-ſtaves, Cattel (black and white) Butter, Cheeſe, Salt, Wheat (and moſt other Grains,) Iron, Lead. It containeth 32 Counties, the chief Towns of Trade, *Dublin*, *Kingſale*, *Galloway*, *Limerick*, *Drogheda*. This Country is about ⅓ of *England*.

3. France *produces theſe Commodities chiefly*

Wines, Paper, Almonds, Corral, Linnen-Cloth (as Dowlas, Lockrams, *&c.*) Salt, Brandy, Silks, Velvets, Buckrams, playing Cards, Glaſs, Wheat, and all kind of Grain, Roſen, Pruons. It containeth 12 Governments, beſides the Dutchy of *Lorain* and *French Compte*; *Paris* is the chief City, but the chief for Trade are *Nantz*, *Bourdeaux*, *Lyons*, and *Morlaix*. This Country is near 3 times as big as *England*.

4. *The* Low Countries, *or* 17 Provinces *chiefly produce*

Tapeſtry, Fine Linnen, Silks, Velvets, Ropes, Butter, Cheeſe, Buffs Leather, Ox-Hides, Armour, Bruges Thread, Chimney-Backs, Steel, Hopps, Bruſhes, Grograms, Cambletts, Fine Tape, Bottles, Pots, large Horſes, Salt, Soap, Sword-Blades, *&c.* Chief City of the 7 *United Provinces*, *Amſterdam*, and of the 10 *Spaniſh*, *Antwerp*; and chief of Trade *Amſterdam*, *Rotterdam*, *Bruges*, *Antwerp* and *Middleburgh*. Theſe 17 Provinces are about ⅓ of *England*.

5. Spain *and* Portugal *produce chiefly theſe Commodities*.

Wine, Wool, Mader, Sugar, Oyls, Almonds, Anchovies, Anniſeeds, Figs, Raiſons, Bayberries, Oranges, Lemons, Saf-

ſron

fron, Soap, Iron, Allom, White Marble, Licoras, Shumack, Cork, Wood, Rice, Silk, and Lamb-Skins. It is divided into 20 Kingdoms and Provinces, the chief Town is *Madrid*, but the chief for Trane are *Bilbo*, *Cadix*, *Lisbon*, *Galicia*, *Barcelona*, *Malaga* and *Sevil*; and is more than twice as big as *England*.

6. Italy, (*including the Commonwealth of* Venice) *produceth chiefly these Commodities.*

Sarsanets, Velvets, Taffata's, Fustians, Cloth of Gold and Silver; Wine, Cottons, Currans, Rice, Raw-Silk, Allom, Vitriol, Fine-Glass, Grograms, Thrown-Silk, Sattin, Corn, Oyl, *&c.* Its divided into 12 Provinces, besides the Isles of *Sicily Sardinia* and *Carsica*; the chief City of all which is *Rome*, but the chief of Trade are *Leghorn*, *Venice*, *Genoa*, *Milan*, *Messina* and *Palermo*. This Country is (with the Isles) as big as one and a half of England.

7. Germany *produces chiefly these Commodities.*

Wool, Steel, Lattin, and Iron-write, Fustians, Lead, Coperas, Allom, Hams, Linnen-Cloth, Yarn, Paper, Bell-metal, Quick-silver, Mum, Rhenish-Wine, Tinn, and many Iron-works: It is divided into 10 Circles, the chief City is *Vienna*, of Trade, *Vienna*, *Norrenburg*, *Quedlinburg*, *Brunswick*, *Emden*, *Strasburgh*, *Frankfort*, *Cologne*. This Country is more than 3 times as big as *England*.

8. Sweden, Norway, Denmark, *and Places about the* Baltick Sea, *produce*

Ox-Hides, Goat and Buck-Skins, rich Furrs, Metals, Oak, Firr, Honey, Tallow, Bow-staves, Ashes, Cables, Canvas, Masts, Dale and Clap-boards, Pitch and Tarr, Cordage, Ropes, Hemp, Flax, Linnen, Yarn, Stockfish, Wax, Wainscote, Wheat, Rye, *&c.* Chief Towns of Trade, *Hamburgh*, *Copenhagen*, *Stockholm Wiborg*, *Sleswick*, *Lubeck*, *Bergen*, *Calmar*, *Abo*, *Notteburgh*, *Bremen*, *Narva*, *Leipsick* and *Riga*; these contain 19 Provinces or Parts. *Sweden* is twice as big as *Denmark*, and together, they are more than 4 times as big as *England*.

9. Poland *produceth chiefly.*

Masts for Ships, Linnen, Pitch, rich Furrs, Wax, Boards, Salt, Amber, Ashes, Milk, Butter, Cheese, Rosin, Soap, Corn. It is divided into 12 Provinces, chief Town is *Cracaw*, and of Trade, *Dantzick*, *Wilna*, *Warsa*, *Cracaw* and *Breste*. This Country is about 3 times as big as *England*.

10. Rus-

10. Ruſſia, *or* Muſcovy, *produces chiefly*

Fine Leather, Furrs, Martins, Sables, Train Oyl, Wax, Honey, Slad, Hemp, Flax, Iron, Salt-petre, Brimſtone, *&c.* It is divided into 37 Provinces. chief Town *Moſcow*, and of Trade *Muſcow*, *Archangel*, *Kola*, and *Regan*. This Country is about 12 Times as big as *England*, but a great part of it is uninhabited.

11. Turky *in* Europe *produceth chiefly*

Wines, Oyl, Mettals, Damasks, Velvets, Vitriol, Sulphur, *Turky* Grograms, *&c.* It contains 18 Provinces; chief Town is *Conſtantinople*, and of Trade, *Nipoli*, *Miſitha*, *Corfu*, *Saloniehi*, *Belgrade*, *Adrianople*, *Setines*, and *Bidlogrea* or *Budiziack*. This Country is about 5 times as big as *England*.

12. Turky *in* Aſia, *produceth*

Raw Silk, Cotton-Wool, Druggs, as Opium, Gauls, Rubarb, *&c.* Soap, Camlets, Tapeſtry, excellent Balm, Wine, Oyl, Cotton-Yarn, Mohair, Honey, Goats-hair, Worſted, Box-wood, and many other Commodities of leſſer Note. This is that part of the World which the Famous *Turky* Company bring all their rich Ships from, and it is divided into 3 Parts, *Natiolia*, *Syria*, and *Armenia*, and they are ſubdivided into 19 Beglerbegs, beſides the Iſles of *Cyprus* and *Rhodes*, &c. The chief Towns of Trade are *Aleppo*, (the chief of this Country) *Scanderoon*, *Smyrna*, *Famaguſta* (in *Cyprus*) *Marax*, *Acſar*, *Burſa*, *Tarſo*, *Cogni*, *Amaſia*, *Acra*, *Ham*, *Tripoli*, *Scham*, *Damas*, *Gaza*, *Jeruſalem*, *Arzerum*, and *Balſora*. This Country is about 6 times as big as *England*, to which adding the *Turks* Dominions in *Europe*, and thoſe in *Africa*, as *Egypt*, with part of *Barbery*, *Abiſſymia*, and *Zanquibar*, makes the whole Turks Dominions about 18 times as big as *England*, which is but $\frac{1}{17}$ of the whole Earth, altho' they are vulgarly accounted $\frac{1}{4}$ thereof.

13. Arabia *produceth chiefly*

Gold, precious Stones, Coffee, Cinamon, Myrrh, Balm, Frankincenſe, Benjamin, Manna, Caſſia, Tea, *&c.* Chief Towns of Trade are *Medina*, (chief of the Country,) *Mecca* *Aylan*, *Herat*, *Janama*, *Zidon* and *Dhafar*. This Country is about 15 times as big as *England*, and borders *South West* on the Red Sea, where the Children of *Iſrael* paſſed through on dry Land.

14. Perſia *produceth chiefly*

Precious Stones, eſpecially rough Diamonds, Manufactures of Gold and Silver, rich Silks, Carpets, Sele skins, Goat-skins, Ala-

Alabaſter, Myrrh, Fruit, and almoſt all ſorts of Metals. Chief Towns of Trade are *Ipſan* (the chief of this Country) *Ormus*, *Souſcr*, *Siapour*, *Shiras*, *Lar* and *Taures*. This Country is about 23 times as big as *England*.

15. East Indies *produce chiefly*

Callicoes, Canes, Cottons, Velvets Silk, Taffata's, Carpets, Muſlain, Indigo, Aloes, Sattins, Salt-petre, Spices, Amber, Borax, Amber greece, Rhubarb, Wormſeed, Sal-Armoniac, Rice, Tea, Fans for Women, Cornelions Rings, Aggats, rough Diamonds, Pearl, China-Ware, Cocoa Nuts, Cinnamon, Ginger, Pepper, Caſſia, Gold and Silver, Proceline Earth, Bengales, and Alabaſter. Chief Towns of Trade are (on this ſide the *Peninſula* or neareſt Part of *India*, on the *Malebar* Coaſt) *Surrat*, *Bombay*, *Cambay*, *Goa* and *Daman*; and on the farther ſide the *Peninſula*, on the *Cormandel* Coaſt, *&c.* The chief Towns are *Fort St. George*, *Biſnagar*, *Maliapur*, *Negapitan*; *Hughley*, *Baleſcar*, and *Agra* the Seat of the Great *Mogul*: Alſo *Achin*, *Benicouli* and *Indrapore* Engliſh Factories on the Coaſt of the Iſland of *Sumatra*, which (tho' near) are not in the Territories of the *Mogul*. This Country of the *Mogul*'s Empire is about 19 times as big as *England*.

16. China *and* Tonquin *produceth chiefly*

Gold, Silver, precious Stones, procelline Diſhes, China ware, Quick-ſilver, China-wood, Sugar, Cottons, Silks, Camphire, Rubarb, Civet, Musk, Ginger. Chief Towns of Trade are *Pekin*, *Cachao*, *Kianguing*, *Hangchen*, *Cinan*, *Heau*, *Domea* and *Quangchen*. This Country of *China* is about 18 times as big as *England*, and is ſaid to have in it 1485 Cities.

17. Tartary *produce chiefly*

Rich Furrs, as Sables and Martins; Musk, Cinnamon, Silk, Flax, Camlets; Rhubarb, and other Druggs. This Country is the biggeſt Empire in the World, being 70 times as big as *England*, tho' the *N. E.* is little known.

18. Georgia *produceth*

Bevers, Martins, and other Furrs; Leather, Wax, Linnen, Thread, Honey. Chief Towns of Trade, *Teflis*, *Sophia* and *Zittach*. This Country is about 3 times as big as *England*.

19. Africa *produceth chiefly*

Gold, Ambergreece, Elephants Teeth, Guinea pepper, Red-wood, Hides, Wax, Sanders, Sugar, Civet, Oyl, Cordovans, Hemp, Flax, Dates, Almonds, Indigo, Gum, Oſtrich Feathers, Am-

Amber, Ebony, Canes, Rice, Citrons, Lemons, Copper, Cocoa-nuts, Cloves, Saffrons, Criſtal, and abundance of Negroes, which furniſh our Plantations in *America* with Slaves. In this Country the Royal *African* Company have had ſeveral Factories along the Sea Coaſt, between *Guinea* and the *Cape of good Hope*, as St. *James's Fort* in the River *Gambia*, *Sierra Leona*, *Sherbero*, *Madre Bomba*, Cape *Miſſerado*, *Cormontyn*, *Emacham*, *Rio Nuno*, the *Ivory Coaſt*, *Widdah*, and Cape *Corſe Caſtle* on the *Gold Coaſt*, ſome of which are now under the *Dutch*. There are likewiſe many curious Towns of Trade or Ports in *Barbary*, as *Sally*, *Morocco*, *Tangier*, *Fez*, *Centa*, *Algiers*, *Santa Crux*, *Saphia*, *Tripoli*, and *Barca*. And the *Magadaſcar Iſle* produceth Ginger, Cloves, Red Sanders, Saffron Wax, Amber, Gum, Ebony, Chriſtial, Cocoa-Nuts and Metals. Chief Town of Trade, *Charemboule* and *Fauſhere*. *Africa* is about 120 times as big as *England*, and the Iſle of *Madagaſcar* is near 2 times as big as *England*.

20. America *produceth chiefly*

1. About the *North* Part, the *Hudſon's Bay* Company bring Bever and other rich Furrs, Whale Oyl, Stock Fiſh, *&c.* Their chief Towns and Places of Trade are *Inquebet*, *Quebeck*, *Port Nelſon*, *Hudſon's Bay*, *Padouſack*, *Breſt* and *Port-Royal*. 2. The middle part produces theſe excellent Commodities, *viz.* Cotton-wool, Sugar, Tobacco, Furrs, Indigo, Ginger, Cloves, Mace, Nutmegs, Roſin, Turpentine, Copper, Tarr, Deal-boards, Gold, Silver, Pearls, Cocoa-Nuts, Cocheneal, Honey, Balm, Amber, Hides, Tallow, Salt, Medcinal Drugs, Logwood. Chief Towns of Trade are *Boſton* and *London* in *New England*, *New York*; *Philadelphia* in *Penſilvania*; *Oxford* in *Maryland*, *James Town* and *Wiccomoco* in *Virginia*; *Charles Town* in *Carolina*; *Port-Royal*, *Sevil*, and St. *Jago* in *Jamaica*; *Antego* and *Barbadoes* in the *Charibbee Iſles*, and alſo *Portobell*, *Panama*, *Cartagena*, *Curaſao*, *Caracco*, *Porto Rico*, *Acapulco*, *Mexico* and *Vera Cruz*. 3. The South Part of *America* produceth, beſide Veniſon, Fiſh and Fowl, Gold and Silver in abundance, Balſam, precious Stones, Long-pepper, Gums, Roſin, Drugs, Cottons, Tobacco, Cocheneal, Braſil-wood, Sugar, Train-Oyl, Braſs, Iron, Copper, Honey. Chief Towns of Trade, *Caramanto*, St. *Magvel* and *Morequinto* in *Firmland*; *Poſton*, *Cuſco*, *Lima*, *Guiaquill*, *Bueſa* and *Creux de Nueva* in *Peru*; St. *Salvado*, St. *Vincent* and St. *Cebaſtion* in *Braſil*; *Aſſumption*, *Conception*, *Villa Rico* and *Cividal* in *Paraguay*, and St. *Jago*, *Mondoe and Cerona in Chilli*. This Part of the World, called *America*, is about 90 times as big as *England*.

CHAP-

CHAP. XIII.

Concerning the New Rates of Poſt-Letters, *as by the Statute,* Anno Nono Reginæ *(or 9th of Queen* Anne*). And other Things in that Act relating to Merchants.*

Foreign European *Letters and Packets.*

		English Money. Single s. d.	Double s. d.	Treble s. d.	Ounce s. d.
France.	FROM any Part of *France* to *London*	0 : 10	1 : 8	2 : 6	3 : 4
Spain and *Portugal*, through *France.*	From *London*, through *France*, to any part of *Spain* or *Portugal*, (Poſt paid to *Bayon*) and the contrary	1 : 6	3 : 0	4 : 6	6 : 0
Italy thro' *France.*	From *London*, through *France*, to any part of *Italy* or *Sicily*, by the Way of *Lyons*: Or to any part of *Turky*, by the Way of *Marcelia*; and on the contrary	1 : 3	2 : 6	3 : 9	5 : 0
Netherlands.	From any part of the *Spaniſh Netherlands* to *London*	0 : 10	1 : 8	2 : 6	3 : 4
Italy thro' the *Netherlands.*	From *London*, through the *Spaniſh Netherlands*, to any part of *Italy* or *Sicily*, (Port paid to *Antwerp*; and on the contrary	1 : 0	2 : 0	3 : 0	4 : 0
Germany, *Denmark*, *Sweden*, *Switzerland.*	From *London*, through the *Spaniſh Netherlands*, to any part of *Germany*, *Switzerland*, *Denmark*, *Sweden* and all parts of the *North*, and the contrary.	1 : 0	2 : 0	3 : 0	4 : 0

		English Money. Single.	Double	Treble.	Ounce.
		s. d.	s. d.	s. d.	s. d.
To *Spain* thro' the *Netherlands.*	From *London* through the *Spaniſh Netherlands* to any part of *Spain* or *Portugal*; and the contrary.	1 : 6	3 : 0	4 : 6	6 : 0
United Provinces.	From any part of the *United Provinces* to *London*	0 : 10	1 : 8	2 : 6	3 : 4
	From *London*, through the *United Provinces* to any part of *Italy* or *Sicily*; and the contrary	1 : 0	2 : 0	3 : 0	4 : 0
Germany, Switzerl. Denmark, Sweden.	From *London*, through the *United Provinces* to any part of *Germany*, *Switzerland*, *Denmark*, *Sweden*, and all parts of the *North*; and on the contrary	1 : 0	2 : 0	3 : 0	4 : 0
	From *London*, through the *United Provinces*, unto any part of *Spain* or *Portugal*; and the contrary	1 : 6	3 : 0	4 : 6	6 : 0
	From *London*, through the *Spaniſh Netherlands*, or the *United Provinces*, to *Hambourg*, (Port paid to *Antwerp* or *Amſterdam*); and the contrary	0 : 10	1 : 8	2 : 6	3 : 4
	By Packet-Boats.				
	Between *London*, *Spain* or *Portugal*	1 : 6	3 : 0	4 : 6	6 : 0
	Ireland *Letters and Packets.*				
	From *London* to *Dublin*, and the contrary; and not coming from, or directed on board a Ship	0 : 6	1 : 0	1 : 6	2 : 0

From

	English Money.			
	Single.	*Double*	*Treble.*	*Ounce.*
	s. d	s. d.	s. d.	s. d
From *Dublin* to or from any Place, not exceeding 40 *Engliſh* Miles from the Chief Office in *Dublin*, and not coming from or directed on Ship-board	0 : 2	0 : 4	0 : 6	0 : 8
If above 40 Miles from *Dublin*, and within the Kingdom	0 : 4	0 : 8	1 : 0	1 : 4

North Britain *Letters and Packets.*

From *London* to *Edinburgh*, and the contrary: And to and from *Dumfreys* or *Cockburnſpel*, and between either of thoſe Places and *Edinburgh*, not coming from or directed on Shipboard	0 : 6	1 : 0	1 : 6	2 : 0
From *Edinburgh*, not exceeding 50 Miles in *Scotland*, and not directed on nor from on board a Ship	0 : 2	0 : 4	0 : 6	0 : 8
From any Place above 50 and not exceeding 80 Miles in *Scotland* from *Edinburgh*, and not coming from, nor directed on Ship-board	0 : 3	0 : 6	0 : 9	1 : 0
And if to or from Places above 80 Miles from *Edinburgh* in *Scotland*, &c.	0 : 4	0 : 8	1 : 0	1 : 4

Note, *That Writs*, &c. *incloſed, are liable to pay in proportion to the Ounce, reſpectively in* Great Britain *and* Ireland.

Engliſh, *or* South Britiſh, *or* Inland *Letters are Rated thus.*

From *London* to or from any Place, not exceeding 80 Miles diſtance from *London*	0 : 3	0 : 6	0 : 9	1 : 0
And to or from any Place above 80 Miles from *London*	0 : 4	0 : 8	1 : 0	1 : 4

American *Letters and Packets*, viz

	Engliſh Money.			
	Single.	*Double*	*Treble.*	*Ounce.*
	s. d	s. d.	s. d.	s. d.
All Letters and Packets paſſing from *London* to *Jamaica*, *Barbadoes*, *Antegoa*, *Montſerat*, *Nevis* and St. *Chriſtophers*, and the contrary	1 : 6	3 : 0	4 : 6	6 : 0
From *London* to *New York*; and the contrary	1 : 0	2 : 0	3 : 0	4 : 0
From any part of the *Weſt-Indies* to *New York*	0 : 4	0 : 8	1 : 0	1 : 4
From *New York* to any Place within 60 Engliſh Miles thereof; and the contrary	0 : 4	0 : 8	1 : 0	1 : 4
From *New York* to *Perth-Amboy* (the Chief Town in Eaſt *New Jerſey*, and to *Bridlington* in Weſt *New Jerſey*; and the contrary. And from *New York* to any Place (not exceeding 100 *Engliſh* Miles) and the contrary	0 : 6	1 : 0	1 : 6	2 : 0
From *Perth-Amboy* and *Bridlington* to any Place not exceeding 60 *Engliſh* Miles; and the contrary	0 : 4	0 : 8	1 : 0	1 : 4
From *thoſe Places*, and the contrary, not exceeding 100 *Engliſh* Miles	0 : 6	1 : 0	1 : 6	2 : 0
From *New York* to *New London*, (the Chief Town in *Connecticute* in *New England*) and to *Philadelphia*, the Chief Town in *Philadelphia*; and the contrary	0 : 9	1 : 6	2 : 3	3 : 0
From *New London* and *Philadelphia* to any Place not exceeding 60 *Engliſh* Miles; and back again	0 : 4	0 : 8	1 : 0	1 : 4
From *thoſe Towns* not exceeding 100 Miles; and back again	0 : 6	1 : 0	1 : 6	2 : 0

From

	Engliſh Money.			
	Single.	*Double*	*Treble.*	*Ounce.*
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
From *New York* to *Newport*, the chief Town in *Rhode*-Iſland and *Providence* Plantation in *New England*: and to *Boſton* the chief Town in *Maſſachuſets* Bay in *New England*: And to *Portſmouth* the chief Town in *New Hampſhire* in *New England*: And to *Annapolis* the chief Town in *Maryland*; and from each of thoſe *Places* to *New York*	1 : 0	2 : 0	3 : 0	4 : 0
From *Newport*, *Boſton*, *Portſmouth* and *Annapolis* aforeſaid, to any Place not exceeding 60 *Engliſh* Miles; and back	0 : 4	0 : 8	1 : 0	1 : 4
And from thoſe *Towns*, not exceeding 100 *Engliſh* Miles, and thence back	0 : 6	1 : 0	1 : 6	2 : 0
From *New York* to the chief Offices in *Salem* and *Ipſwich* and in *Piſcataway*, and to *Williamsburgh* in *Virginia*, and thoſe Places to *New York*.	1 : 3	2 : 6	3 : 9	5 : 0
From the chief Offices in *Salem*, *Ipſwich*, *Piſcataway* and *Williamsburgh* aforeſaid, to any Place not exceeding 60 *Engliſh* Miles; and the contrary	0 : 4	0 : 8	1 : 0	1 : 4
And from thoſe Towns, not exceeding 100 *Engliſh* Miles, and the contrary	0 : 6	1 : 0	1 : 6	2 : 0
From *New York* to *Charles-Town*, the chief Town in *Carolina*; and the contrary	1 : 6	3 : 0	4 : 6	6 : 0
From *Charles-Town* aforeſaid to any Place not exceeding 60 *Engliſh* Miles; and the contrary	0 : 4	0 : 8	1 : 0	1 : 4
And all Letters and Packets from *Charles-Town* aforeſaid to any Place not exceeding 100 *Engliſh* Miles, and thence back again	0 : 6	1 : 0	1 : 6	2 : 0

And

And all Letters, and Packets of Letters directed to or from on board any Ship in any Port within his Majeſty's Dominions, ſhall pay one Penny over and above the Rates Chargeable by this Act.

Penny-Poſt Letters, within the Bills of Mortality, and 10 Miles round from the *General Letter Office* in *London*, pay as before this Act was made.

Note, That by a Proviſo in the aboveſaid Act, all Merchants Accompts not exceeding one Sheet of Paper, and all Bills of Exchange, and Invoyces, and Bills of Lading are allowed without Rate. And alſo all Covers of Letters not exceeding a Quarter of a Sheet of Paper, ſent by the Way of *Vienna Marſeilles*, *Venice* or *Leghorn*, to be ſent to or from *Turky*, ſhall paſs without Rate.

No Packet to be carried out of *Great Britain* in Foreign Ships.

The Poſt to pay nothing for paſſing Ferries in *North America*.

Inland Letters to pay where delivered. And the Two Univerſities to pay as before the making of this Act.

All Letters on board any Ships that may touch in any Port, ſhall, under the Penalty of Five Pounds for every Offence, be delivered to the Deputy Poſt-Maſter of ſuch Place, who ſhall pay to the Perſon delivering the ſame, a Penny a Letter.

Carriers, Coaches, and Watermen, are not to carry Letters; unleſs they concern the Goods carried by their Carrs, Waggons, or Pack-Horſes at the ſame Time.

The Days of ſending Letters to Foreign Parts, are,

Monday] To *France*, *Italy*, *Spain*, *Flanders*, *Germany*, *Sweden* and *Denmark*.

Tueſday] To *Holland*, *Flanders*, *Sweden*, *Denmark*, *Germany*, and all Parts of *England*, *Wales*, *Scotland* and *Ireland*.

Thurſday] To *France*, *Spain*, *Italy*, and all Parts of *England* and *Scotland*.

Friday] To the *Netherlands*, *Germany*, *Sweden*, *Denmark*.

Saturday] To all Parts of *England*, *Scotland* and *Ireland*.

To *Portugal* once a Fortnight; and to the *Weſt Indies* the laſt *Thurſday* in every Month.

The Days Foreign Mails are due at *London*.

Tueſday and *Friday*] From *Holland* and *France*.

Monday and *Thurſday*] From *Flanders*.

Monday, *Wedneſday* and *Friday*] From *Ireland*.

One a Week from *Portugal*, *Spain*, &c.

CHAP.

CHAP. XIV.

A DICTIONARY, *or Alphabetical Explanation, of the moſt difficult* Terms *commonly uſed in Merchandize and* Trade; *and ſhews the Value of Coins, Weights, Meaſures, &c.*

A

Baſhee.] Sixteen Pence Sterling in *Perſia.*

Account of Sales.] An Account wherein the Sale of Goods is expreſſed.

Agai.] The Difference in *Holland* or *Venice* of the Value of currant Money and Bank-Notes, which in *Holland* is often 3 or 4 *per Cent*, in favour of the Notes.

Allotting of Goods.] Is when a Ship's Cargo is divided into ſeveral Parts, which are to be bought by divers Perſons whoſe Names are wrote on as many pieces of Paper, which are applyed by an indifferent Perſon to the ſeveral Lots or Parcels; and by this means the Goods are divided without Partiallity, for every Man has the Parcel of Goods, that the Lot with his Name on is appropriated to. *Vid. Inch of Candle.*

Alquier.] A Corn Meaſure at *Lisbon*, 1 Peck, 3 Quarts, and 1 Pint.

Altien.] *Muſcovy* Money, 3 Capecks, or 3 $\frac{1}{3}$ Pence Sterling. *Vid. Capeck.*

Ana.] An *Eaſt India* Coin, 4 Pyce, or 1 $\frac{11}{16}$ *d.* Sterling. See *Rupee.*

Anchor.] Of Brandy, *&c.* in *Holland*, 10 *Engliſh* Wine Gallons.

Apparel.] (Of a Ship) the Sails.

Arbitration.] Is when two Traders, *&c.* cannot agree about the Terms of ſome Contract, they each chooſe a Man to make an End of the Difference; and if theſe two cannot agree, the Matter is uſually referr'd to a third Perſon called an Umpire, to whoſe Deciſion both ſides are obliged to acquieſce. *Vid. Stat.* 9, 10. *W.* 3.

Archtelin.] A Corn Meaſure at *Rotterdam*, being 3 Pecks, 5 Quarts, and near 1 Pint.

Arrear.] Behind-hand or owing.

Aſar.] A Gold Coin at *Ormus* in the *Perſian* Gulph, about 6 *s.* 8 *d.* Sterling.

Aſper.]

Asper.] A *Turkish* Coin of three Farthings in Value, or 80 is 1 Lyon Dollar.

Assignee.] One to whom a Thing is lawfully assigned or made over.

Average. Is 1st. The general Allowance made to a Master of a Ship of 1 *d.* or 2 *d.* in every Shilling Freight (as mentioned in the Bill of Lading.) Or, 2. An Allowance to him upon special Occasions, when he sustains Damage, which is equally divided upon all his Freight, and paid by each Merchant according to his Cargo. Or, 3. The Contribution that several Insurors pay to make good the Loss of Goods cast over-board, which are by them insured.

Auln.] *Vid.* Exchange of Coin of the Par of Exchange.

Aume.] (Of Rhenish Wine) is forty two Gallons, or a Tertian of a Pipe.

B

Bagg.] An uncertain Quantity, as of

Almonds about 3 *C.*
Anniseeds—3 to 4 *C.*
Pepper—1 $\frac{1}{4}$ to 3 *C.*
Goats-Hair—2 to 4 *C.*
Cotton-yarn 2 $\frac{1}{2}$ to 4 $\frac{1}{4}$ *C. &c.*

Bahar.] At *Moca* in the *East-Indies* 386 ℔ Averdupois; it contains 15 Fracelloes, each 24 Rotelloes 14 Ounces, of 10 Drams each Ounce. But at the *Molucca's*, the great *Bahar* is 6250 ℔ and the less 625 ℔. Averdupois, by which Spice is sold.

Bale.] A Pack of Merchandize, but is of different Quantity, as of

Cotton-Yarn 3 to 4 *C.*
Raw-Silk—1 to 4 *C.*
Lockram or Dowlas, 3, 3$\frac{1}{2}$, or 4 Pices.

Ballance an Account.] To make the Debtor and Creditor sides alike in the Sums. See Chap. 10. §. 10.

Bambee.] A sort of Cane; also an *East-India* Measure, 5 Pints *English.*

Bancal.] A Weight in *East-India*, 16 $\frac{9}{10}$ Drams Averdupois. *Vide* Caty.

Bankrupts.] (See Letter C.)

Baratry.] (Of the Master of a Ship, *&c.* Is his cheating the Owners or Insurers, either by running away with their Ship, or imbezeling their Goods, *&c.*

Barter.] (Or Commutation) To Truck or Change one Commodity for another.

Basket.] An uncertain Quantity, as of

Medlers 2 Bushels.
Assafætida 20 to 50 ℔ Weight

Batch.] Four Cruetzers in *Germany*, or 2 Pence 2 Farthings $\frac{2}{3}$ Sterling.

Batman.] *Vide* Exchange of Coin.

Batze.]

Batza.] A Peice of *German* Coin wanting only $\frac{1}{10}$ of a Penny of being three Pence Sterling.

Bercovett.] (or Berquet) 10 Pood in *Russia*, or 173 $\frac{1}{3}$ lb Averdupois; by which Weight Hemp and other gross Goods are weigh'd.

Besse.] A Copper Coin as *Ormus* in the *Persian* Gulph, 4 Cosbeg (1 *d.* 2 $\frac{1}{3}$ *qr.* Sterling.)

Bill of Debt.] See Chap. 15.

Bill of Entry.] Is an Account of the Goods entered at the Custom-House, both Inward and Outward, in which is expressed the Merchant Exporting or Importing: The Quantity of Goods and Sorts, and whither Transported, or from whence.

Bill of Exchange.] Is a short Writing, ordering the Payment of a Sum of Money in one place to any Person assigned by the Remitter, in Consideration of the like Value paid the Drawer in another place.

Bill of Lading] An Instrument signed by the Master of a Ship, acknowledging the receipt of the Merchant's Goods, and obliging himself to deliver the same in good Condition, at the place to which they are consign'd; of which there are usually 3. A 1st is given to the Merchant to keep; a 2d sent to the Factor to whom the Goods are consigned; and a 3d is kept by the Master of the Ship. *Vide* Chap. 15.

Bills of Parcells.] An Account of the particular Sorts and Prizes of Goods bought, given by the Seller to the Buyer.

Bill of Sale.] See Chap. 35.

Billions.] Bimillions, or Bismillions, or twice Millions, or (in Numeration) it is Millions of Millions; shewing that the Word Million is twice mentioned. Some call it Dillions.

Bind.] (of Eels) 10 Strike, each 25 Eels.

Bitt.] Of like Value with the Rial, but currant at *Barbadoes* for 7 $\frac{1}{2}$ *d.* Sterling.

Boiseau] Of Corn at *Bourdeaux* in *France*, 2 Bushell and near $\frac{1}{2}$ a Peck; but at *Rochell* 2 $\frac{1}{2}$ Pecks *English* Measure.

Book of Rates.] Is a small Book established by Parliament, declaring at what Value Goods that pay Poundage (or $\frac{1}{20}$ part of the Value shall be reckoned, so that a 20th part of the Sum found in the Book of Rates, is taken for the Duty payable by the Acts of Tunnage and Poundage.

Bottomage or Bottomree.] Borrowing Money on a Ship, and lending Money on Bottomree, is to lend Money to the Master of a Ship, to be paid with Interest at 40 or 50 *per Cent*

at the Ships ſafe Return, which if the Ship never do, the Lender never has his Money, and therefore is it the Intereſt is uſually ſo great.

Box.] An uncertain Quantity, as of Quickſilver 1 to 2 C. Prunelloes 14 lb.

Rings for Keys, 2 Groſs, *&c.*

Brace.] *Vide* Exchange of Coin, Ar. 4. of Sect 4. of Ch. 9.

Brait.] (Diamonds) Rough Diamond.

Break Bulk] Take out part of the Ship's Lading or Cargo.

Brokage.] (or Brokerage) The Wages or Proviſion given to them. *Vid.* Ch. 11. Sect. 2.

Brokers.] Buyers and Sellers of Goods for others, *&c. Vide* 3 ſorts thereof, Chap. 11. in the 2d Sect.

Bundle.] Of Baſs Ropes, Harneſs Plates, Glovers Knives } 10

Hamburgh Yarn, 20 Skeans.

Basket-Rods, 3 Foot about at the Band.

Bulruſhes $\frac{1}{60}$ of a Load.

Burden] (of Gadſteel) 180 lb.

Burſe.] an Exchange or place of meeting for Merchants to diſcourſe of their Trade.

Butlerage.] A ſmall duty paid for Wine imported by Unfreemen.

Butt.] Of Sack 2 Hogſheads.

Currants—15 to 22 C.

Cade.] Of Red-herrings 500

Sprats—1000.

Cagg or *Kegg.*] (of Sturgeon) 4 or 5 Gallons.

Candil.] An *Eaſt India* Weight at *Surat* 540 lb, and at *Meſtupatan* 538 lb 2 ¾ Averdupois.

Cane.] A Meaſure in *Spain* in Length 1 Yard Quarter and Half; but at *Marſelia* 2 Yards and ½ a Quarter *Engliſh.*

Canister.] of Tea, 75 to 1 C. Weight.

Cantar] at *Tunis* and *Tripoly*, about 114 lb. at *Acra* in *Turky* 603; at *Aleppo* 100 lb.

Cantaro] Of Wine at *Alicant* and thereabout, 3 Gallons *Engliſh* Wine Meaſure.

Cantone.] a Meaſure in the *Molueca* Iſlands about 5½ Pints *Engliſh*, 800 of which make a Quoian of Rice.

Capan.] In *Sumatra* in *Eaſt-India* about 3 pence Sterling.

Capeck.] *Muſcovy* Money, in Value 1 ½ Penny Sterling, or $\frac{1}{70}$ of a Greven. See *Roubble.*

Carrage.] of Lime 64 Buſhels.

Cargo.] Loading of a Ship; it is alſo a Weight in *Spain*, 12 Roves at *Valencia*, which is 347 $\frac{4}{10}$ lb Averdupois; at *Alicant* 'tis but 280 lb. or 100000 Aſpers in ſome part of *Turky* is a Cargo, as is 300 Weight at *Marſelia.*

Caroteel.] of Cloves 4 to 5 C. Weight.

Currans 5 to 9 C.

Mace about 3 C.

Nutmegs 6 to 7½ C. *&c.*

Caſe.]

Caſe.] Of *Normandy* Glaſs 120 Foot.
Of Recorders, 5 Recorders.

Caſh] Vide *Petees.*

Cask.] (An uncertain Quantity as) of Sugar 8 to 11 C. Weight.
Almonds about 3 C.

Caty.) A Weight in ſome Parts of *Eaſt-India*, 2 Bancal or 1 ℔. 5 ℥ and 2 Drams *Engliſh* But the Money called a Catty in the Iſland *Sumatra*, is 8 Tale or *6l.* 8 *s.* Sterling.

Chartar Party.] An Inſtrument or Writing drawn between a Merchant and a Maſter of a Ship, containing the ſeveral Articles or Particulars of their Agreement. *Vide* Chap. 15th the Form of one.

Cheſt.] (an uncertain Quantity) as of Sugar 10 to 15 C. Weight.
Glaſs 2 to 3000 Foot:
Caſtle Soap 2½ to 3 C. Weight,
Indigo 1½ to 2 C. 5 Score to the C. *&c.*

Cheviſſance.] Compoſition between Debtor and Creditor.

Chique.] *Vide* Exchange of Coin.

Chriſtiana.] in ſome Parts of *Sweden*, is about 16 *d.* Sterling.

Cliping.] Coin in *Sweden*, value 11⅓ *d.* Sterling; it is half their Mark.

Cloffe.] *Vide* Tare.

Cloſe an Account.] To cloſe an Account, is to make an end or ſhut up an Account, when you intend to write no more thereto, and is done by Ballancing and drawing a Line, *&c*

Clough.] (or Draught) An Allowance of 2 Pound at every 3 C. Weight for the turn of the Scale, that ſo the Commodity may hold out when retail'd

Coard.] Of Wood, 4 Foot long, 4 Foot broad, 8 Foot deep.

Coban.] Gold Coin in *Japan* worth about 30 Shill. Sterling.

Coca] a Meaſure in *Japan* about an *Engliſh* Ale Pint.

Cockett.] A Cuſtom Warrant wrote on a ſmall Sheet of Parchment, with the Seal of the Cuſtom-houſe, given to a Merchant upon Entry of his Goods, certifying that the ſame are Cuſtomed.

Colour Strangers Goods.] Is when a Freeman or Denizen, permits a Foreigner to enter Goods at the Cuſtom-houſe in his Name, whereby the Foreigner, who in many Caſes ſhould pay double Duty, by being entered in the Name of a Freeman, pays but ſingle Duty, againſt which there are many ſevere Laws.

Collibis.] A Money changer.

Commiſſion of Bankrupt.] A Commiſſion under the great Seal of *England*, directed

to five or more Commiſſioners, to enquire into the Particulars of a Man's Circumſtances that is failed or broke (as we call it.) Theſe Commiſſioners are to act according to certain Statutes made in that behalf; as 34 and 35 *Hen.* 8. *c.* 4. 13. *Eliz. c.* 7. 1. *Jac.* 1. *c.* 15. 21. *Jac.* 1. *c.* 19. 14. *Car.* 2. *c.* 24 &c. for Relief of Creditors.

Who may be Bankrupts.

All Perſons (by the Statutes above) uſing Trade by way of Bargain, Exchange, Barter, Chevisſaunce, or otherwiſe in Groſs or Retail, or ſeeking Trade, of living by buying or ſelling, Subject or Denizen, Scrivner, *&c.* that obtains Protection, unleſs by Parliament, that exhibited Bill againſt Creditor to take leſs than due, or to procure longer time of Payment than was given at the time of the original Contracts, or being indebted 100 *l.* or more, ſhall not pay or compound for the ſame within 6 Months after due, and the Debtor be arreſted for the ſame; or within 6 Months after an Orriginal Writ ſued out to recover the ſaid Debt, and Notice thereof given to him, or left in writing at his Dwelling-houſe or laſt place of abode; or being arreſted for Debt, ſhall after his Arreſt lie in Priſon two Months or more upon that or any other Arreſt or Detention in Priſon for Debt. Or being Arreſted for 100 *l.* or more of juſt Debt, ſhall at any time after ſuch Arreſt eſcape out of Priſon, or procure his Enlargement by putting in common or hired Bail, ſhall be accounted and adjudged a Bankrupt, except, as by Stat. 14. *Car.* 2. *c.* 24. ſuch as have Stock in the *Eaſt India*, or Royal Fiſhery, or *Guinea* Companies, who ſhall not be eſteemed Merchant or Trader.

Commiſſioners how to Act.

Commiſſioners in the Commiſſion of Bankrupt may by the Majority within 6 Months convey all Lands, *&c.* to the uſe of the Creditors, unleſs Remainder be in the King by his Gift; and that they may ſell what the Bankrupt poſſeſſeth as Owner, tho' ſold before, *&c.*

Commiſſioners (as aforeſaid) may Authorize to break open Houſe, Shop, Trunk, *&c.* and ſeize.

Commiſſioners (as above) may examine Offenders on Interogatories, and alſo the Wife of the Bankrupt.

Commiſſioners may aſſign Debts due, or to be due, and properly alter, as if made to them.

Commiſſioners (as aforeſaid) may examine the Bankrupt on Oath,

Oath, and on notice thrice at his Houſe to be declared a Bankrupt, and on 5 Proclamations not appearing, to be apprehended.

Commiſſioners may proceed to Execution on Death, after Commiſſion and before Diſtribution.

Commiſſioners being ſued may plead the General Iſſue, and give this Statute in Evidence.

Commiſſioners may commit ſuch as refuſe to anſwer fully.

Commiſſioners to allow charges to Witneſſes ſent for.

Commiſſioners to declare (on requeſt) the beſtowing of Bankrupt's Money, *&c.*

Commiſſioners to ſee that Creditors be relieved *pro Rata*, without regard to greater or leſſer Security.

Commiſſioners of Bankrupt to be ſued forth within 5 Years after being a Bankrupt, and any Creditor, within 4 Months after the Commiſſion, and until Diſtribution, may partake paying ſhare of Charges.

Commiſſion to a Factor] *Vide* Chap. 11.. Sect. 2.

Commerce.] Trade of buying and ſelling.

Commutation.] *Vide* Barter.

Company.] (of Merchants) are either, 1. Companies in Joint-Stocks, as the *Morea* Company, *Eaſt-India*, Company, and *Greenland* Company; or, 2. Regulated Companies, as the *Hamborough*, *Turky*, *Eaſtland* and *Muſcovy* Companies,

Compoſition.] By Compoſition in the way of Trade is meant, when a Debtor cannot pay his whole Debt, he agrees with the Perſon to whom he oweth the Money, to take part in lieu of the whole Debt, for which part he obtaineth a Receipt in full, as for the whole Debt; and this Money is ſaid to be paid by Compoſition.

Cono.] (or Cogno) Wine Meaſure at *Florence*, being 16 Barrels of $11\frac{7}{16}$ Gallons *per* Barrel.

Conſign Goods.] Is to preſent deliver, or aſſign over; eſpecially Goods are ſaid to be conſigned to a Factor, when they are ſent him by his Employer to be ſold, *&c.* or when a Factor ſendeth Goods to his Employer, the Goods are ſaid to be conſigned to that Employer.

Contraband Goods.] Are ſuch as are prohibited Importation, as Buttons, Thrown-Silk, Sword-Blades, *&c.*

Copes Mate.] A Partner in Merchandizing.

Copſtake.] At *Bremen* in *Germany* about $12\frac{1}{2}d.$ Sterling.

Cordage.] The Tackle of a Ship.

Corre-

Correſpondent.] When two Men hold a mutual Familiarity or Commerce by Letters, Invoyces, *&c.* they are Correſpondents.

Cabeg.] Money in *Perſia* ¼ of a Beſs.

Covado.] a Meaſure for Cloth in the *Perſian Gulf*; the long one about 38 Inches, but the ſhort one there and at *Lisbon* in *Portugal*, is equal to the *Pico* at *Aleppo*, or 27 Inches, as is the ſhort Cavado at *Surat*, by which they meaſure Silks and Callicoes; but the *Cavado* there is 35 Inches, uſed in meaſuring Woollen Cloth.

Coudry.] $\frac{1}{10}$ of a Maſs in *Japan*.

Counterpeize.] To Weigh one againſt another.

Cuache.] A ſmall Piece of Money at *Florence* and *Leghorn* in *Italy* 3 Farthings Sterling, or the Eight of a *Julio*, or 5 *Quadrins*.

Cranage.] Money paid for the Uſe of a Crane, by which bulky Goods are drawn up to Shore, out of the Ship, Hoy, *&c.*

Creditor.] One that gives Credit, or lendeth to another.

Creek.] or Gulf, A crooked Shoar, where two Corners of Land extend themſelves into the Sea at ſome ſmall diſtance, between which a Veſſel may Sail.

Crown.] Currant, *&c.* ſee Exchange.

Cruſado.] In *Germany*, 6 *s.* 2 *d.* 1 ½ *qr.* in *Portugal* 2 *s.* 10 *d.* and in *Ireland* 2 *s.* 8 *d.* Sterling.

Cruſſer.] A ſmall Piece of *German* Coin, 60 whereof make a Florin, ſo its Value is 2⅔ Farthings Sterling.

Cuſtom.] Is a Duty paid for Goods exported by the Subject, to Kings or Princes for protecting them in their Trade from Enemies, *&c.*

Cubit.] 18 Inches.

Cruzers] Ships that ſail upon the Ocean, with deſign to fight and take Enemies Ships.

D

Debenture.] They are owing; or an Arrear; or (as moſt commonly underſtood in Trade) is a Writing certifying Money to be due from the King, *&c.* to any one for Cuſtom; or payable for foreign Goods exported by Certificate.

The Form of a Debenture may be ſeen in my *Comes Commercii*, Chap. 4.

Debtor.] One that is indebted to another.

Demurrage] An Allowance to the Maſter of a Ship by the Merchants, for ſtaying in a Port longer than the time prefix'd for his Departure. *Vide* Freight of Ships, Chap. 11.

Denier.] In *France* $\frac{1}{10}$ of a Farthing, and in *Germany* ⅓ *qr.*

Diary.]

Diary.] (or *Journal*) a Day-Book, or an Account of every Days proceedings in Trade.

Dicker.] (Of Leather or Knives) 10; of Necklaces 10 Bundles; each Bundle 10 Necklaces.

Discount.] Set off, deduct or abate in consideration of prompt payment, which is usually what the Interest comes to; as if I owe 100 *l.* and by contract am to pay at the end of 6 Months, if I pay the same presently, I am to have a Sum allowed me which bears such Proportion to the Sum given, as the Rate does to the Principal and *Rate*, if the Discount be for a Year, and in proportion to the Time, if for less than a Year.—See Sect the 5 of Chap. 9.

Disembarque.] Take Goods to Land out of a Ship or Vessel.

Distrain.] Take away Goods for the payment of a Debt.

Ditto.] The same, or the said.

Dividend.] (or *Divident.*) In Arithmetick, the Number to be divided: But of Company to make a Dividend, is to assign how much of the Profits gained by a Company's Trading, is proportioned or justly due to each Share contained in the whole Joint-stock; so that each Member, by knowing how many Shares he has therein, may know what he is to receive of the whole Gain.

Dock.] A Place where Ships are built, refitted, or laid up, *&c.*

Doight.] The 4th Part of a Stiver in *Holland.*

Dollar.] See Sect. 4 of Chap. 9. for the 4 *Spanish* ones or Pieces of Eight. The Rix Dollar at *Hamburgh* about 4 *s.* 6 *d.* the Imperial and Phillip Dollars about 4 *s.* 9$\frac{1}{2}$ *d.* That at *Brunswick* is 4 *s.* 3 *d.* 0$\frac{1}{2}$ *qr.* And that at *Copenhagen* 48 Stivers or 4 *s.* 9$\frac{1}{2}$ *d.* The Lyon Dollar is 5 Shillings Sterling.

Dovane.] The Custom-house at *Lyons.*

Dram.] A Weight for fine Goods in the *Persian Gulph* about *Ormus*, 6 whereof make an Ounce Averdupois, 8 *English* Drams in an Ounce Troy, and 16 the Ounce Averdupois.

Drapery.] Cloath-market, or that resembling the Cloathing of a Picture.

Draught.] (of a Ship) the Number of Feet under Water when Laden; also an Allowance in Weighing. *Vid.* Clough.

Drugs.] Simples (of which the most part are dry) some whereof are medcinal, as Jesuits Bark, Gallingal, Allom, Rubarb, Cream of Tartar, *&c.* Others are Grocery Drugs, as Coffee, Tea, Tamerins, Anni seeds

ſeeds, Cocoa Nuts Ginger, *&c.* almoſt innumerable.

Dina.] An *Eaſt-India* Coin about 30 Shillings Sterling.

Ducat.] The *Hungarian* or *Polander* about 4 *s.* 8 *d.* That of *Rome* (called the Gold Crown) 5*s.* 6*d.* and for thoſe of *Venice.* See Sect. 2. Chap. 9.

Ducatoon.] See Sect. 4. Ch. 9.

Duty or *Additional Duty.*] Money paid for Cuſtom of Goods, *&c.* to be applyed to the King's Uſe, as that of Tunage, Poundage, *&c.* whether the ſame is Exported or Imported.

E

Effects.] Merchant's Goods or Concerns.

Ell.] Long Meaſure in ſeveral Countries; ſee Sect. 4. of Chap. 9.

Embargo.] Is ſaid to be laid on Shipping, when, by Order of the Government, none may go out of any Port of a Nation; and ſometimes that none may either come in nor go out.

Empory.] An Exchange.

Enchiridion.] a Pocket-Book or *Vade Mecum.*

Endorſe.] To write on the backſide of any Inſtrument or Writing, ſomething relating to the Matter within; as to

Endorſe.] (a Note) is to write on the backſide, what part thereof is paid, alſo when and by whom, as uſed by Bankers, *&c.*

Endorſe,] (a Bill of Exchange) To order another to Receive the Content of a Bill that is payable to me or my Order, which is done by writing my Name on the Backſide; as if *A* draws a Bill of 100*l.* payable to *B.* or Order, which is accepted upon Preſentation; but before the Bill is payable, *B* has Occaſion to pay 100*l.* to *D*, ſo he writes his Name on the Back, and delivers to (*D*) the Bill; and *D* having occaſion to pay to *E* 100*l.* writes his Name on the Backſide, and delivers the Bill to *E*, *&c.* So all they that have wrote their Names on the Backſide are Endorſers; and he that has the Bill laſt, If the Acceptor will not pay it, may proſecute both all the Endorſers; and the Drawer and Acceptor, or any of them by the Cuſtom of Merchants.

Enfranchiſe.] Encorporate into a Body or Society, as all our Corporations are.

Enhance.] To raiſe the Price of any thing.

Epha.] A *Jewiſh* Meaſure of four Gallons and half.

Eſcambio.] A Licenſe to make over a Bill of Exchange to one beyond Sea.

Exaction.] Taking unlawful Fees or Reward.

Exchangers

Exchangers.] Men that return Money beyond Sea.

Exchange Brokers.] Men that tell how the Exchange goes, and find those that will Exchange. *Vide* Factors, Chap. 11. §. 2.

Export.] To send any thing out of a Port to Sea, as Goods in a Ship, *&c.*

Extortion.] Taking more from another for Usury, *&c.* than is justly or legally due.

F

Factor.] A Merchant's Agent, *&c. Vide* Chap. 11. §. 2.

Facterage.] The Wages that a Factor has. *Vide* Chap. 11.

Faggot.] (Of Steel) 120 lb Weight.

Fangot.] An uncertain Quantity, as of Raw Silk, 1 to $2\frac{1}{4}$ *C.* Grogram and Mohair Yarn $1\frac{1}{2}$ *C.* to $2\frac{1}{2}$ *C.*

Fanam.] A Piece of Coin at *Meslupatan* in *India*, value 6 *d.* $1\frac{1}{5}$ *qr.* 15 of which make a Pagod of Gold.

Fat.] An uncertain Quantity, as of Yarn 210 to 221 Bundles; Unbound Books $1\frac{1}{2}$ Maund; Wire 20 *C.* to 25 *C.* Weight; Hinglass $3\frac{1}{4}$ *C.* to 4 *C.* Weight.

Florin.] In *Germany* 3 *s.* 4 *d.* in *Sicily* 2 *s.* 6 *d.* in *Spain* 4 *s.* $4\frac{1}{2}$ *d.* in *Holland* and *Poland* 2 *s.* and in *Savoy* $3\frac{1}{2}$ Pence Sterling, of Gold 5 *s.* Accounts are kept in some Parts of *Germany* in Florins, Batches and Crutsars, and in others in Florins, Souls and Deniers, Values of which are found under their respective Denominations.

Fodder.] Of Lead, $19\frac{1}{2}$ *C.*

Folio. A Leaf, or 2 Pages of the Ledger, *&c.*

Fond or *Fund.*] A Foundation or Stock in Money, or Money-worth.

Foot.] Of *Amsterdam* and *Antwerp* $11\frac{1}{4}$, *Paris* $12\frac{2}{5}$, *Bream* $11\frac{1}{4}$, *Frankfort* and *Cologne* $11\frac{2}{5}$, *Spain* 12, *Rome* $11\frac{1}{5}$, *Venice* $13\frac{2}{10}$, *Dantzick* $11\frac{3}{10}$ *Copenhagen* Foot is $11\frac{1}{2}$ Inches *English.*

Forestall.] To Buy Goods before they come to Market, with Intent to advance their Price.

Foundered.] A Ship is so when it is filled with Water by a Storm.

Fraight.] Or *Freight*, is the Merchandize a Ship carries; and sometimes the Money paid for such Cartiage, is called *Freight.*

Frails.] Of Raisins about 75 Pounds.

Franchise.] Freedom or Privilege.

Frist.] To sell Goods at time or upon trust.

G

Gabaridge.] That which *Irish* Goods are wrapped in.

Gabell.] Tribute or Custom paid to Princes.

Gaffe.] An Iron Hook to pull great Fishes into a Ship.

Gaga.] A Measure in *Japan* containing 100 Gantas, each Ganta being three Ale Pints is $37\frac{5}{8}$ Ale Gallons, by which Rice and other Grain are Measured.

Gallon.] (*Irish*) 224 solid Inches for Wine or Brandy, *English* 231, and of Ale 282, *Guernsey* 252 Inches.

Garble.] The Dust and Dross that is severed from Spices, *&c.*

Garbling.] Picking the worst from the best of any Commodity.

Gare.] Very course Wool.

Gaset.] Money of *Zant* (a Curran Island in the *Mediterranean*) in Value $2\frac{7}{12}$ Farthings, 80 of which make a Dollar, or 4 *s.* 6 *d.*

Goad.] An Ell *English*, by which *Welch* Friez is measur'd.

Greven.] A Coin in *Muscovy* 12 *d.* Sterling, 10 makes their Rubble.

Gross.] Small Money in *Poland*, Value $3\frac{1}{3}$ Farthings, 30 whereof makes their Guilder, or 2 *s.* Sterling; also a Gross of any thing is 12 Dozen.

Gross Weight.] The Weight of the Goods or Merchandize, Dust and Dross mixt therewith; and of the Bag, Chest, Frail, or other thing in which they are contained, out of which Gross Weight Allowance is made for Tare and Trett.

Guild.] A Company combined with leave of their Prince.

Guild-Merchant.] A Privilege whereby Merchants may hold Pleas of Land within themselves.

Guilder.] The common Silver one in *Germany* is = 3 *s.* 8 *d.* $\frac{4}{5}$. that of *Holland* or *Poland* 2 *s.* that of *Nuremburgh* 7 *s.* 1 *d.* the Golden one in some parts of *Germany* is 4 *s.* 9 *d.* $\frac{1}{2}$ *qr.* Sterl. of *Portugal* 5 *s.* Accounts are kept in *Holland* in Gilders and Stivers, and in *Flanders* in Pounds, Shillings and Pence of Gross.

H

Hair's Breadth.] Is accounted among the *Jews* the 48th part of an Inch.

Hallage.] Toll or Duty paid for any Commodity brought to be vended in a Hall.

Hand.] (In the height of a Horse) four Inches.

Hand's-Breadth.] Three Inches.

Hanega.] A Corn Measure at *Bilboa* in *Spain* $1\frac{1}{2}$ Bushel *English*; so that five *Hanega*'s make a Quarter or eight Bushels *English*.

Hanock.]

Hanock.] A Corn Measure at *Maliga* in *Spain*, containing (unheaped) lb 29, or heaped 144 lb Averdupois.

Harping Irons.] Iron Instruments to strike Whales and other great Fishes withal.

Harpiniers.] Those that strike Fish with the Harping-Iron.

Hin.] *Jewish* Measure of about three Quarts.

Hogshead.] 63 Gallons, *Vide* Chap. 1.

I.

Jarr.] Of (Oyl, Olives) 18 to 26 Gall. Green Ginger about 100 Pounds Weight.

Immunity.] Privilege or Freedom.

Importuous.] Without Port or Haven.

Import Goods.] To bring them into a Port.

Impost.] (Of Goods) the Tax or Custom paid for Merchandize Imported.

Inch of Candle.] Goods are sold by Inch of Candle, when a Merchant or Company of Merchants (as the *East-India* Company, *&c.*) having a Cargo of Foreign Goods arrived, are minded to make a speedy Sale thereof. In this Case Notice is usually given upon the Exchange by Writing, and elsewhere, when the Sale thereof begins; against which time the Goods are divided into several Parcels called Lots, and Papers Printed of the Quantity of each, and of the Conditions of Sale, as that none shall bid less than a certain Sum, more than another has bid before, *&c.* during which time of bidding, a small Piece (about an Inch) of Wax Candle is burning, and the last bidder when the Candle goes out has the Lot or Parcel exposed to Sale. And if any Difference arise, as it often happens in a good Lot, that four or five more bid together, in this Case the Lot is put up again till the true Buyer can be discovered in the Judgment of Standers-By, appointed for that purpose, which Buyer is bound to stand to the Bargain and to take the Lot, whether good or bad, at the Rate he bought it, by being the last Bidder.

Indorse.] *Vide* Endorse.

Ingenio.] The Sugar-House at *Barbadoes*.

Ingott.] (Of Silver or Gold) an uncertain Quantity of Bullion or melted Gold or Silver.

Inland Bills.] Bills payable in the same Land in which they are drawn.

Inland Town.] One that stands far from a Port, and to which no Vessel can Sail.

Inland Trade.] Trade that is managed wholly in one Country.

Inſurer.] (Of Ships, Cargo, *&c.*) One who for a Sum of Money paid in Hand to him by a Merchant, obliges himſelf to make good ſuch Ship, *&c.* ſo far as is the Value of that for which he hath received a *Premium*, in Caſe of Loſs by Storm, Pyrates, *&c.* as mentioned in the Policy. Ch. 15.

Interlopers.] Thoſe that hinder or intercept the Trade of a Company legally eſtabliſhed, by the Trading in the ſame way.

Inventory.] A Catalogue, or a particular Eſtimation of Goods, *&c.*

Invoyce.] An Account of Goods, Cuſtom, Proviſion, Charges, *&c.* ſent from a Perſon to his Correſpondent.

Invoyce Tare.] The Tare (or Weight of the Cask, Bagg, *&c.* in which Goods are put) mentioned in the Invoyce or Factory.

Journal.] A Book containing a daily Account of any Buſineſs, or a Merchant's Journal, is a Tranſcript of the Waſte-Book, which in this Book is made Debtor. *Vide* Chap. 9.

Julio.] Money at *Leghorn*, and *Florence* in *Italy*, Six pence Sterling, or 8 Cratches.

K

Keel.] The loweſt Timber, or Bottom of a Ship.

Key.] A Place to Land or Ship off Goods at, the Number of which are ſettled by the Parliament, or appointed by the King: Thoſe at preſent belonging to the Port of *London*, are *Galley Key*, *Brewers-Key*, *Cheſters Key*, *Wool-Dock*, *Cuſtom-Houſe Key*, (except the Stone Stairs on the Weſt Side thereof) *Porters Key*, *Bear Key*, *Sabs Dock* (excluding the Stairs there), *Wiggins Key*, *Youngs Key*, *Ralphs Key*, *Dice Key*, (except the Stairs there) *Smarts Key*, *Somers Key*, (except the Stairs there) *Lyon Key*, *Hammons Key*, *Botolph Wharf*, *Gaunts Key* (except the Stairs on the Eaſt Side), *Cocks Key*, and *Freſh Wharf*, beſides other Places for landing Fiſh, Salt, and Proviſion; as *Billingſgate*, *Bridge-Houſe* in *Southwark*, &c.

Killow.] A Corn Meaſure in *Turkey* $3\frac{2}{3}$ Pecks *Engliſh*, and 5 *Zant* Killows is 6 *Engliſh* Buſhels.

Kintall.] Of Fiſh 100 ℔ Weight. *Vide* Exchange of Coins, of the Par of Exchange, Gen. Head 3. *Vide* Quintal.

Knitlidge.] The Balaſt of a Ship.

Larboard.]

L.

Larboard.] *Port.* The left side of a Ship.

Laſtage.] The Ballaſt of a Ship.

Laſt.] Of Aſhes for Soap, Cod Fiſh, White Herrings, Meal, Pitch and Tarr. } 12 Barrels.

Of Red Herrings = 20 Cades; Stock-fiſh = 1000, of Dogſtones = 3 Pair, Flax or Feathers 17 C. of Gunpowder 24 Barrels (or 2400 Pound Weight:) Of Leather 20 Dicker, of Hydes = 12 Dozen, of Corn or Rape Seed = 10 Quarters, and of Wool 12 Sacks.

Leakage.] An Allowance to the Merchant (for Liquids) of 12 *per Cent.* And to Brewers 3 in 23 Barrels of Beer, and 2 in 22 Barrels of Ale.

Leaky.] A Veſſel is ſo, when it lets out any of the Liquor therein contained; or a Ship is ſo when it lets Water come in.

Ledger.] A Book of Accounts, wherein every Man's Account, and alſo that of every Sort of Goods Bought and Sold by a Merchant are placed each by themſelves. *See* Chap. 10. §. 1. and 6.

Letter of Advice.] A Letter from one Correſpondent to another, adviſing him what Bills he has drawn on him, *&c. Vide* The Duty of a Factor, Ch. 11.

Letter of Credit.] Is a Letter from one Correſpondent to another, to requeſt his Crediting the Bearer thereof with a certain Sum of Money therein mentioned: In which Letter it is neceſſary ſome ſpecial Token ſhould be mentioned, the better thereby to ſecure both ſides from Frauds that might be practiſed in procuring Sham-Letters of Credit. *Vide* Ch. 16.

Letter of Licenſe.] A Letter of Licenſe is an Inſtrument or Writing granted to a Man that has fail'd or Broke, Seal'd and Signed by his Creditors, which Letter does uſually give a longer time for payment, ſo that the Debtor having this Letter of Licenſe, can go about his Buſineſs without fearing an Arreſt. *See* the Form of one, Chap. 15.

Liſpound.] A Weight at *Hamburgh*, 15 of their Pounds (or $\frac{1}{20}$ of their Kintle) and is 16 lb 4 ℥ and 12 Drams Averdupois; and at *Copenhagen* in *Denmark* it is one 20th of their Ship-pound.

Livre.] In *France* 18 *d.* in *Spain* 5 *s.* at *Leghorn* and *Florence* 9 *d.* *Genoa* 16 *d.* Sterling; A Livre is 20 Sous (or Soldo's in *Spain*) each Sous 12 Deniers; in which Denominations Accounts are kept in the moſt noted Places for Traffick all over *France*, *Spain* and *Italy*.

Loan.] Intereſt of Money.

Loobard.] A Bank for Uſury, ſo called from the Inhabitants in *Lombardy* in *Italy*, who are much

much concern'd in Usury.

Loop.] Of Corn, at *Riga* two Bushels, and in some Places 4 Pecks and $\frac{4}{5}$.

Loot.] A weight of some Parts of *Germany* and *France*, half their Ounce, or the $\frac{1}{32}$ of a Pound; so the *Loat* (for Example) at *Spires*, is very near 9 Drams Averdupois.

Lyon Dollar.] Eighty Aspers, or 5 *s.* Sterling at *Aleppo* in *Turky*, where Accounts are kept in Dollars and Aspers.

M.

Maggio.] Of Corn in *Italy* 24 Stare, or 17½ Bushels *English* Corn Measure.

Mamooda] Coin at *Mestupatan* in *East-India*, Value near our Shilling.

Mamothy.] At *Ormbus* in the Gulf of *Persia*, Value 8 *d.* Sterling.

Manch.] Of Silver is 60 Shekels, or 7 *l.* 10 *s.* 00 *d.*; of Gold 100 Shekels, or 75 *l.* Sterling.

Manifest.] A Manifest is a Transcript of a Master of a Ship's Cargo, shewing what is due to him for Freight from each Person to whom the Goods in his Ship belong.

Manual Goods.] Those whereof present Profit may be made.

Manufacture.] A Commodity produc'd by the Work of the Hand, as Cloth, Bays, Serge, Hats, *&c.* but Wool is no Manufacture, because Nature produceth it, but whatsoever Commodities are made by Art, of Things naturally produc'd, are properly called Manufactures.

Maritime.] Belonging to the Sea.

Mark] Money, in *England* 13 *s.* 4 *d.* in some Parts of *Germany* 16 Stivers, or 2 *s.* Sterling; in *Denmark* it is 16 Shillings (where Accounts are kept in Marks and Shillings) or 12½ *d.* Sterling; but in *Sweden* the Mark 22½ *d.* Sterling.

Mark of Goods.] A distinguishing Characteristick, whereby every Merchant and Trader knows his own Goods and the Prices thereof, which is sometimes by other Characters, and particularly the Mark upon the Bales, Chests, Bundles, *&c.* of Partners is for the most part as in the Bill of Lading, Chap. 15.

Mark Lups.] In some Parts of *Poland* 3 *s.* 9½ *d.* Sterling.

Marygross.] A *German* Coin, Value 1 *d.* 1¼ Farth. Sterling.

Mass.] A Silk Weight in *India* $\frac{1}{14}$ of a Pyce; also a Coin in *Japan* 10 Coudrys, or 5½ *d.* Sterling. But in the Island *Sumatra* the *Mass* is 4 Capans, or 1 *s.* Sterling.

Mast.] (Of Amber 2½ Pound Weight.

Maund.]

Maund.] Of unbound Books is 8 Bales, each 1000 Pound Weight, or 2 Fats.

Maund-Shaw.] A Weight at *Ormous* in the Gulf of *Persia* 12½ Pounds Averdupois; but the

Maund-Tauris.] Us'd in weighing Silk there, is but 6½ lb. Averdupois; at *Surat* there is one Maund of 33 lb. 5 ℥. 7 Dr. the other of 27 lb. Averdupois; and the Maund at *Mesupatan* is but 26 lb. 14 ℥. 8 Dr. of our common Weight.

Measo.] Five Hundred Herrings.

Measure.] Of Corn in *Sweden* 3 Bushels, and near a half, the same with a Barrel in *Denmark*. In some Parts of *England* it is 1 Bushel.

Medin.] In *Egypt* 3 Aspers (in Medins and Aspers they keep their Accounts at *Cairo* and *Alexandria*); at *Aleppo* it is 1½*d.* Sterling; and of Corn in *Cyprus*, it is 2 Bushels *English*.

Messe.] A Piece of Money *East-India*, 1500 Petties, or 15*d.* Sterling.

Metre.] Of Wine in *Turky* 2 Quarts 1½ Pints.

Mettadel.] Of Wine at *Florence* and *Leghorn*, 1 Quart and near half a Pint, 2 whereof make a Flask.

Mitre, by some *Milrea.*] Of Wine and Oyl in *France*, near the *Mediterranean*, 4 Scandals or 17 Gallons *English* Wine Measure. *See* Exchange of Coin foregoing.

Missengrosi.] (or Silver Gross) a *German* Money Value 2*d.* ½ *qrs.*

Mittigal.] A Weight for Silk at *Surat*, 2 Dr. and about ⅛.

Moiety.] One Half of any Thing.

Monopoly. The buying of any Commodity up, so that none can sell or gain by it but one Person or Partners in Company.

Mortgage.] A Pawn of Lands, Goods, *&c.* as a Credit or Depositum, whereon to borrow Money; which Goods, *&c.* to be the Lenders, if the Money is not paid back at the Time prefixed.

Mount.] (of Plaister of *Paris*) 3000 Pound Weight.

Mulcts.] Fines which a Company have Power to lay on Ships or Goods belonging to their Members, to raise Money for the Use of such Company for Maintenance of Consuls, or to make Presents to Foreign Princes, *&c.*

Murrage.] Toll taken of every laden Cart or Horse, toward the Repair of the Walls of a Town or City.

Myd.] Of Corn, 24 Minots, or 8 Quarters and ½ *English.*

N

Napery.] Linen Cloth, or Table Cloth.

Na-

Naval.] Belonging to the Sea.

Naufrage.] Shipwreck.

Navigable.] Sailable, or which may be ſailed in.

Navigator.] One that underſtands Navigation; or one that Imports Goods in a Foreign Bottom.

Navigation.] The Art of Sailing, as alſo the Manner of Trading by Sea, called Merchandizing.

Naulage.] The Freight or Sum paid for carrying Goods by Sea.

Navy.] A Fleet of Ships.

Neat-Wheat.] The Weight of the pure Commodity alone, without the Cask, Bag, *&c.* And (in Commodities that have any) when the Duſt, Droſs, *&c.* is taken out by Garbling, *&c.*

Negotious.] Full of Buſineſs.

Neſt.] (Of Cheſts of Coffers) 3.

Notary-Publick.] A kind of Scrivener, who publickly takes Notes of Contracts, Draughts, Proteſts of Foreign Bills, *&c.*

Note for Money.] A ſhort writing, whereby one Man promiſeth to pay another a Sum of Money under his Hand: *Vide* Chap. 15.

Noting a Foreign Bill.) A Publick Notary's going to be a Witneſs, to take Notice that a Merchant will not accept or pay it.

O

Obliged.] He to whom a Bond is made.

Obligor.] He that enters into Bond.

Oke.] A *Turkiſh* Weight: See *Turky* Weight in Exchange of Coin; but the *Oke* of Fleſh is $2\frac{1}{4}$ lb.

Okham.] Tow or Flax to drive into the Seams of a Ship.

Omer.] A *Jewiſh* Meaſure of $3\frac{1}{2}$ Pints.

Orcio.] An Oyl Meaſure, at and about *Florence*, 8 Gallons and 1 Quart *Engliſh* Wine Meaſure.

Ork.] A Butt for Figgs or Wine.

Orgal.] The Lees of Wine dryed, uſed by Dyers to make Cloth take Colour.

Orlap.] Any Deck of a Ship but the firſt.

Overſet.] When the Ship is over-turned.

Ouſter le Mer.] An excuſe for not appearing in Court by being beyond Sea, *&c.* See 4. *Hen.* 7.

Owlers.] They that carry Sheeps-wool or any prohibited Goods in the Night to the Sea-ſide in order to Ship off contrary to Law.

P

Pace.] Five Foot.

Pack of Wool.] 17 Stone and 2 pounds, or 240 lb Weight.

Packer.] He that makes up Barrels of Herrings, *&c.* See 15. *Car.* 2.

Pagod.] A Piece of *Indian* Gold worth about 8 *s.* Sterling, it is 15 Fanams.

Palingman.] A Merchant Denizen born.

Palmo.] In ſome parts of *Spain* 7½ Inches, at *Genoa* 9 Inches and near ¼ *Engliſh.*

Pancart.] A Paper of the Rates and Cuſtoms due to the *French* King.

Par of Exchange.] *Vide* Exchange of Coin.

Paraw.] A Coin at *Conſtantinople* is about 1⅓ Farthing *Engliſh.*

Pariation.] Evenneſs of Accounts.

Paſſagio. A Writ for the Keepers of a Port to grant Paſſage over Sea.

Patart.] A *Dutch* Stiver 5 of which makes 6 *d* Sterling.

Pattacoon] A *Spaniſh* piece of Money in *Flanders*, about 4 *s.* 8 *d.* Sterling.

Patſie.] See *Batſie.*

Paw.] In *Guinea* equal to an Aſper in *Turky*, or 3 Farthings *Engliſh.*

Pawn-Brokers.] They that lend Money upon any Sort of Goods or Commodity.

Pecull.] At *Japan*, *Java*, &c. in *Eaſt-India*, is 100 Catty, or 132 lb Averdupois.

Peſage.] Cuſtom for Weighing.

Peſterable Wares.] Thoſe that are troubleſome and take much room in a Ship.

Petees.] Lead Money in *Eaſt-India*, 25 of which makes a Farthing *Engliſh*: See Meſſe and Caſh.

Petty Talley.] A Competency of Proviſion for a Ship.

Piaſter.] Something better than a piece of eight Piller.

Picqage.] Money paid at Fairs or Marts for breaking the Ground to ſet up Booths.

Pico.] The long one in *Barbary* and *Aleppo* 27 Inches, whereby Woollen Cloth and Silk are meaſured, that by which Linnen is meaſured, is but 26 Inches, the *Egyptian* Pico for Cloth is 25⅞ Inches, and that for Silks and Stuffs is 22¼ Inches *Engliſh.*

Piece of Eight.] 4 Sorts: *See* Par of Exchange. *Sect.* 4. of Chap. 9. or the Index.

Pocket of Wooll.] Part of a Pack, about half.

Policy of Inſurance.] An Inſtrument or Writing given by Inſurors of Ships, Goods, Houſes, *&c.* to Merchants, *&c.* to oblige themſelves to pay the Sum inſured in Caſe of Loſs: *Vide* Chap. 15.

Pood.] A Weight in *Muscovy* 37 lb: 5 ℥: 5 *dr.* of Averdupois, whereby their Rich Furrs and other fine Goods are weigh'd, 10 of which make a Bercovet.

Poop.] The uppermost part a Stern, a Ship's Hull.

Portegue.] Money of *Hamburgh*, in Value 2 *l.* 12 *s.* 9 *d.* ¼ Sterling.

Portgreve.] The Governour of a Port Town.

Port Sale.] A Publick Sale of Things to them that bid most.

Post an Account.] Is to put an Account forward from one Book to another, as to Transcribe what is written in the Waste-Book, in the Journal, *&c. Vide* Chap. 10. Sect. 8.

Pot or Pb.] In *Guernsey* and *Jersey* half the Gallon, or 126 cubical or solid Inches.

Poundage.] A Duty granted the King of *England* of 12 *d.* for every 20 *s.* Value of all Goods Exported or Imported, except such as pay Tunnage, and Bullion, and Diamonds, and a few others.

Pre-emption.] The first buying of any Thing.

Premium.] A Reward, or the Money given for Insuring Ships, Goods, Houses, *&c.*

Price Currant.] A Weekly Account publish'd in *London*, of the Currant Value of most Commodities.

Primage.] A small but customary Allowance to the Master of a Ship for his Sailors, paid at the Lading of a Ship.

Prizage Wine, &c.] Such as is taken from Enemies by way of Prize.

Prize Office.] An Office appointed for the Sale of Ships, *&c.* taken Prize.

Prohibited Goods.] Such Goods as are not to be Exported or Imported.

Prompt Payment.] Present Payment.

Protest of a Bill of Exchange] *See* Chap. 11. Sect. 1. and the Form of one, Chap. 15.

Provision.] The Wages due to a Factor: *See* Chap. 11. Sect. 2.

Publick Notary.] *See* Notary Publick.

Puncheon.] Of Wine = 84 Gallons; of Pruons 10 or 12 Hundred Weight.

Purse.] Of Money in *Turky*, 500 Dollars, or 125 *l.* Sterling.

Pyce.] An *East-India* Coin being $\frac{1}{64}$ part of a Rupee, or $\frac{1}{4}$ of an Ana; but in Weight it is 11¼ Drams.

Q

Quartillons.] Is when the Word Millions is expres'd 4 Times in Reading a Number, as Millions of Millions of Millions of Millions.

Quadrin.] Small Money in *Italy*, $\frac{1}{7}$ of a Cracke, and is in Value $\frac{1}{5}$ of a Farthing.

Quarter.] Of Corn in *Spain*, near

near 139 Pounds Averdupois, but in *England* 8 Bushels.

Quarter Deck.] Over the Steerage, as far as the Captain's Cabin.

Quarter Wind.] When all the Sails may draw together.

Quintal or *Kintle.*] 100 lb in most Places, as of Fish at *Newfoundland* and in the *Streights*; but the Kintal at *Legborn* is but 75 lb Averdupois, at *Hamburgh* there is one of 120 lb, another of 300 of their Pounds, which Pound is $\frac{22}{100}$ of a Pound *English*; at *Bilboa* for Iron the Kintle is 158 lb *English*, and for other Goods 112 lb Averdupois, for the *Turkish* Kintle. *See* Sect. 4. Chap. 9.

Quoian.] *See* Canton.

R

Rack Vintage.] A second Voyage of our Merchants into *France* for Rack Wines.

Rack Wines.] Wine cleansed and drawn from the Lees.

Ratian.] Of Corn in some Parts of *France* 4 Bushels $1\frac{1}{4}$ Pecks *English*; but it is properly no more than a Day's Allowance of Bread or Forrage for Man or Horse.

Ream.] Of Paper 20 Quires

Rebate.] An abating what the Interest comes to, in consideration of prompt Payment, and in Strictness Rebate ought to be allow'd for prompt Payment of the Interest, but that is not often regarded. *See* Discount.

Ree.] A *Portugal* Coin: *See* the Table in Exchange.

Reed.] A *Jewish* Measure, 3 Yards and 3 Inches.

Regrator.] One that buyeth and selleth again in the same Market, or within four Miles thereof.

Remancipate.] To sell or return a Commodity to him that first sold it.

Rialto.] A Marble Bridge at *Venice*, where the Merchants meet.

Rigging.] The Ropes, *&c.* belonging to the Yard and Masts of a Ship.

Rix Dollar.] *See* Dollar, In Rix Dollars and Stivers the *Danes* keep Accounts.

Roll.] (Of Parchment) 60 Skins.

Rome's Crown.] (Call'd the Gold Crown) 5 *s.* 6 *d.* that at *Florence*, 5 *s.* 3 *d.* that at *Sicily*, 5 *s.* 6 *d.* and for those at *Venice*. *See* Sect. 4. Chap. 9.

Rottello.] A *Turkish* Weight. *See* Exchange, the Equation of Weight. Chap. 9. Sect. 4.

Rove.] A Weight in *Spain* very near 29 lb Averdupois, by which they Weigh *Spanish* Wooll at and about *Valentia*, but at *Alicant* the Rove is just 28 lb. There is also a Rove at *Malaga* for Wine Measure,

which is four Gallons *Engliſh*.

Rouble.] Money in *Muſcovy* 10 *s.* Sterling; in Roubles and Pence the *Engliſh* there keep their Accounts, and the *Dutch* there keep their Accounts in Roubles, Grevens and Pence, 20 *d.* to the Greven, and 10 Greven to the Rouble. *See* Altien and Capeck.

Rundlet.] An uncertain Quantity of Liquids from 3 to 20 Gallons.

Rupee.] An *Eaſt-India* Coin worth 2 *s.* 3 *d.* Sterling, $\frac{1}{16}$ of which is an Ana, and $\frac{1}{4}$ of an Ana is 1 Pyce, in which Coin Accounts are kept at *Surat* in the *Eaſt-Indies*, and ſome Parts of the Bay; but in others in Pagods and Fanams.

Ryall.] A *Spaniſh* piece of Money about 6$\frac{1}{4}$ *d.* Sterling.

S

Sack.] Of Cotton Wooll 1$\frac{1}{2}$ *C.* to 4 *C.* of Sheeps Wooll 26 Stone of 14 ℔ to the Stone, but in *Scotland* 24 Stone of 16 ℔ each Stone.

Salme.] A Corn Meaſure in *Spain* about 8$\frac{1}{2}$ Buſhels *Engliſh*, but about *Leghorn* it is juſt 8 Buſhel or our Quarter.

Salvage.] An Allowance made both by the Statute and Civil Laws to ſuch as ſave Ships or Goods from Danger of Seas, Enemies, *&c.* *See* a late Statute made 4 and 5 *W. M. c.* 25.

Serplier.] A piece of Canvas to wrap Wares in.

Scale.] (In Trade) that Town where Goods are Landed, in order to be carried to another, is the Scale to that other, and the like of Exchange.

Seandell.] Of Oyl at *Provence*, *Marſeilles*, and thereabout in *France*, 4 Gallons and 1 Quart *Engliſh*.

Scavage.] A Duty formerly laid on Merchants, Strangers, Goods Imported or offered to Sale.

Scudi.] In ſome Parts of *Turky* 64 Aſpers, or 4 *s.* Sterling, but at *Leghorn* and *Florence*, in *Italy* the Sudi is 7$\frac{1}{2}$ Livers, each 9 *d.* or 5 *s.* 7$\frac{1}{2}$ *d.* Sterling.

Seam.] Of Glaſs, 24 Stone, each 5 Pounds Weight; of Malt 8 Buſhels.

Sear.] A Silk Weight at *Surat* 11$\frac{1}{10}$ Ounces, but at *Meſlupatan* 10 Pounds Averdupois.

Seignorage.] An Allowance to the King or Prince for Gold and Silver brought in the Maſs to be Coined.

Seiſure.] To make Seiſure is to Seiſe prohibited Goods, *&c.* *See* 14 *Car.* 2. Ch. 11. Rev. 6. *W. M. c.* 1.

Semibole.] Half a Tun of Wine, or 1 Pipe.

Seraph.] A *Turkiſh* Gold Coin about 5 *s.* Sterling.

Sexon.] Of Barillia 3 *C.* Almonds, 2 *C.* Anniſeeds, 3 to 4 *C.* and

and Caſtle Soap $2\frac{1}{2}$ *C.* to $3\frac{1}{4}$ *C.*

Seſling.] A piece of *German* ſmall Money Value $\frac{4}{5}$ of a penny Sterling.

Shahee.] At *Ormus* in the *Perſian* Gulph 4 *d.* Sterling.

Shepel.] A Corn Meaſure containing in *Holland* 3 Pecks; at *Lubeck* $3\frac{1}{2}$ Pecks, and at *Hamburg* 1 Buſhel *Engliſh.*

Shippound.] At *Antwerp* 312 lb but at *Copenhagen* about 320 lb at *Norway*, *Dantzick* and *Riga* it is $293\frac{1}{2}$ lb Averdupois, uſed for weighing of Flax, Hemp, and other Groſs Goods in the *Baltick* Sea, or Eaſtland Trade.

Shock.] (Of Soap, Boxes, Canes, Woods, Trays, *&c.*) 60.

Skilling.] (Or Shilling) in the *Netherlands* $7\frac{1}{2}$ pence in *Denmark* $\frac{4}{5}$ of a Penny Sterling, at *Lubeck* $1\frac{1}{2}$ penny.

Skipper.] A Seaman.

Smuglers.] Thoſe that conceal prohibited Goods, againſt whom there are many ſevere Statutes, as 14 *Car.* 2. Ch. 11. Rev. 6. *W. M. C.* 1, &c.

Sombre.] At *Malaga* in *Spain*, a Meaſure for Oyl and Wine, 2 Quarts *Engliſh.*

Sort.] Of Ballances is 4 Dozen.

Sound.] To ſound (at Sea) is to make Tryal how many Fathom the Sea is in Depth, which is done by a ſounding Line, (which is 20 to 200 Foot long marked at 3, 10 and 15 Foot with Leather, and 5 with white and 7 with red Rags) and a ſounding Lead which is about 7 Pound Weight.

Sous.] (Or Soo) in *France* $3\frac{1}{2}$ Farthings, in *Germany* 2*d.* Sterling, 20 Sow is 1 Liver in *France*, or 1 Florin in *Germany* reſpectively.

Span.] 9 Inches.

Spitſgroſs.] In *Germany* 2 Marygroſs, or 2 *d.* $3\frac{1}{2}$ Farthing Sterling.

Stack] (Of Wood) 3 Foot long, 3 Foot broad, and 12 Foot high.

Stand.] (Of *Burgundy* Pitch) $2\frac{1}{2}$ C. to 3 C. Weight.

Staple.] A Publick Mart by 27 *Edw.* 3, *&c.* ſettled and appointed to be kept conſtantly at *York*, *Lincoln*, *Newcaſtle upon Tine*, *Norwich*, *Weſtminſter*, *Canterbury*, *Chicheſter*, *Wincheſter*, *Exeter* and *Briſtol*, to which Places Merchants and Traders were to carry to ſell there.

Staple Goods.] Wooll, Leather, Lead and Wood-fells; tho' now by Staple Goods is generally meant, any good vendible Commodity not eaſily ſubject to periſh.

Stare.] Of Corn about *Leghorn* $2\frac{19}{11}$ Pecks; but at *Venice* $2\frac{1}{2}$ Buſhels.

Star-board.] The right ſide of a Ship.

Staticks.] The Science of Weights and Meaſures.

tatut

Statute Merchant.] (Or Statute Staple) Bonds made and acknowledged as directed by the Statutes.

Stelionate.] Deceit in Merchandize.

Stiver.] See Guilder.

Stoop.] Of Bees in *Flanders* 2 Quarts ($\frac{1}{14}$ of their Barrel) in *Holland* it is $2\frac{2}{3}$ Quarts, at *Lubeck* 7 Pints *Engliſh*, but the Stoop of Wine in *Holland* is 3 Quarts $\frac{2}{3}$ Pints *Engliſh* Meaſure.

Storage.] Ware-houſe Room.

Subhaſtation.] Selling Confiſcate Goods under a Spear.

Subſcribe.] To underwrite any Inſtrument or Writing.

Sultana.] A *Turkiſh* piece of Gold, in Value 80 Aſpers or 5 *s.* Sterling; in which Accounts are kept in *Tripoly* and *Tunis* in *Barbary*, but at *Aleppo* it is 8 *s.* Sterling, or 80 Medins, 100 Aſpers is a Sultana at *Moco*, the Scale to *Mecca* the Metropolis of *Arabia*.

Supercargo.] One employed by the Owners of a Ship, or Merchants, to go a Voyage to overſee the Cargo, and to diſpoſe of it out and into the beſt Advantage of the Merchants, for which Service he is allowed great Commiſſion, becauſe the Truſt repoſed in him is very conſiderable.

Surcharge.] Charge upon Charge, or the Charge in any Thing which is over and above that which is juſt and right.

Suttle Weight.] *See* Chap. 9. Sect. 2.

Swelver.] A ſmall piece of *German* Coin about 2 Pence Farthing Sterling.

T

Tackle.] (Of a Ship) The Ropes, *&c.*

Tale.] In ſome Parts of *Eaſt-India* 16 Meſs (or 20*s.* Sterling;) at *Japan* 4 *s.* 6 *d.* and in *Sumatra* 16 *s.* Sterling.

Tallent.] (In Weight) 62 ℔ Troy.

Tally.] A cleft piece of Wood given by the Officers of the Exchequer to ſuch as pay Money thereinto, upon Loans, *&c.*

Tally-Man.] One that ſells all manner of Houſhold Goods, Linnen, Woollen, *&c.* to be paid by ſo much a Week, in which Method he uſually extorts a prodigious Advantage from the Buyer.

Tari.] In *Sicily* and thereabouts 5 *d.* Sterling, where Accounts are kept in Ounces, Tari, and Grains, 20 Grains is 1 Tari, and 30 Tari 1 Ounce, and in ſome Places, Accounts are kept in Florins and Tari, 6 Tari is their Florin.

Tare and *Tret.*] See Chap. 9. Sect. 2.

Tarpaulin.] A tarred Canvas laid on the Deck of a Ship to keep the Weather out.

Tattamy.]

Tattamy.] A Measure in *Japan*, in length 1 $\frac{1}{2}$ Yards *English*.

Tellers.] Four Officers that receive the Money in the Exchequer.

Ticul.] Of Gold in *China*, in Value 2 *l.* 16 *s.* 3 *d.* Sterling.

Timber.] Of Furrs 40 Skins.

Timph.] Money in *Poland*, about 7 pence Sterling.

Tol.] A Silk Weight at *Surat*, $\frac{1}{2}$ a Pyce (or 12 Mas) equal to 5 Drams $\frac{2}{10}$ Averdupois, or 6*d.* Weight 16 Grains Troy; they have also another Tol whereby their *Bezoar* Stone, rich Perfumes and Gold and Silver are weigh'd, which is 7 penny Weight and 16 Grains Troy.

Toman.] A piece of Gold at *Ormus* in the *Persian* Gulf, in Value 3 *l.* 6 *s.* 8 *d.* Sterling.

Transier.] A Custom-house Warrant to let pass.

Transport.] To carry over Sea.

Trillion.] Or thrice Millions, shewing that the Word Millions is thrice mentioned in Numeration, and is as much as to say Millions of Millions of Millions.

Tronage.] Custom for weighing Wooll.

Tubb.] Of Tea about 60 lb; Camphire 56 to 86 lb; Vermillion 3 to 4 C.

Tun.] Of Timber cut to a Square 40 solid Feet.

Tunnage.] Custom granted the King of *England* for Liquids Imported or Exported: *See* the 1st granted 43 *Edw.* 3.

Tydes-men] Officers attending the Ships until the Custom is paid.

V

Vertule.] Of Corn in *Flanders* 2 Bushels, $\frac{1}{4}$ Pecks *English* Corn-Measure.

Villein.] (Fleece of Wooll) that which is shorn from a scabbed Sheep.

Vintage.] Grape-gathering.

Ullage.] (Of a Cask, *&c.*) what the same wants of being full.

Uncustom'd Goods.] Those that have not paid Custom, *Vide* 14. *Car.* 2. *c.* 11, Rev. 6. *W. M. c.* 1.

Usance.] Is here in *England* for the most part reckoned a Calendar Month, as from *January* the 10th to *February* the 10th; double Usance two such Months, *&c. Vide* Chap. 11. Sect. 1.

W

Waga.] A Weight, or 256 lb.

Water-born.] Just a-float.

Weigh.] Of Glass = 60 Bunches; of Salt or Corn 40 Bushels.

Werp.] A Corn-Measure at *Embden* in the Circle of *Westphalia* 5$\frac{1}{4}$ Pecks *English*.

Warfage.] The Fee paid for Lading or Unlading Goods at a Wharf.

Wooll-

Wool-drivers.] Thoſe that buy Wooll of Sheep-Maſters and carry it on Horſeback to Sell.

Wooll-winders.] They that are ſworn truly to bundle up Fleeces between the Buyer and Seller.

Wreck.] The periſhing of a Ship, and every Perſon in it; what part is caſt aſhore belongs to the King, but if any Creature in the Ship eſcape, the Goods are ſtill the Owners, if claimed within a 12 Month and a Day.

Y

Yard.] (Of a Ship) The Timber croſs the Maſt, at which the Sails hang; and the Main-yard is ½ of the Keels length.

Yard.] (*Engliſh* Meaſure) is at *Paris* $\frac{76}{100}$ of an Ell; at *Rotterdam* $1\frac{34}{100}$ Ell; *Copenhagen*, as alſo at *Stockholm*, *Leipſick*, *Hamburgh*, *Norremburgh*, *Collen*, *Lubeck* and *Dantzick* 1 Ell, and $\frac{6}{100}$ at *Bruſſels* and *Antwerp* $1\frac{3}{100}$ Ells, at *Madrid* and *Toledo* $1\frac{11}{100}$ Vares, at *Vienna* $1\frac{3}{100}$ Ells for Linnen, and for Cloth and Silks $1\frac{13}{100}$ Ells, *Venice* $1\frac{16}{100}$ Brace, *Rome* $\frac{44}{100}$ of a Cane, *Genoa* $2\frac{1}{24}$ Palms, *Leghorn* and *Florence* $1\frac{6}{100}$ Brace, *Liſbon* $\frac{82}{100}$ of a Vare, in *Sicily* $\frac{41}{100}$ of a Cane, *Madera* Iſles $\frac{88}{100}$ of a Brace.

Z

Zacca.] The Mint at *Venice*.

Zachine.] A Gold Coin worth about 7 *s.* 6 *d.* Sterling.

Zelot.] Money at *Conſtantinople*, about 2 *s.* 6 *d.* Sterling.

CHAP. XV.

Contains the Form of ſuch VVritings as are commonly uſed by Merchants and Traders.

I Have not inſerted the following Preſidents with deſign that the Merchant, *&c.* ſhould be at the Trouble of Writing them over upon occaſion, which would be too tedious, but chiefly that young Merchants and Traders by reading them, may be well acquainted with the Nature thereof, and may thereby know how to fill up Blank Bills of Lading, Policies of Inſurance, Charter-Parties, *&c.* tho' there are ſome others of which there are no Blanks ready Printed, as Bills of Exchange, Notes,

Notes, Invoyces, Letters of Credit, Letters of Licenſe, &c. which they that have occaſion muſt write over, and for their Service a Form or Method may not be uſeleſs, eſpecially to ſuch as have not ſeen much of the Affairs of the World; and for theſe Reaſons I have in Alphabetical Order, given an Example of all the moſt material Writing ſubſervient to Trade that I could think of.

§. 1. *An Arbitration Bond, with a Condition thereto annex'd.*

This Inſtrument is very uſeful among Merchants, who upon any ſlight occaſion do not uſually go to Law, but refer the Matter to be decided by two knowing Men; or if they two cannot agree, it is often determined by an Umpire, or one Man, choſen indifferently by both Parties; to ſtand to whoſe Award, final Determination, or Umpirage, the diſagreeing Parties commonly give each other mutual Bonds.

In this Form.

Note, That the words variable, I have included in a Paratheſis, between 2 Crochets, thus [ ]

NOverint univerſi per præſentes [*me Benjaminum Bidfare de London in Com. Middleſex, Mercator.*] *Teneri & firmiter Obligari* [*Willielmo Wellmeant de London predic' Mercator,*] *in Centum Libris bona & legalis monetæ Angliæ ſolvend' eidem* [*Willielmo Wellmeant*] *aut ſuo certo Atornat. Executor. vel Adminiſtrator. ſuis: Ad quam quidem ſolutionem, bene & fideliter faciend. Obligo me, Hæredes, Executores & Adminiſtratores meos firmiter per præſentes ſigillo meo ſigillat. dat.* [*primo die Maii Anno Regni Dom. noſt. Willielmi Tertii, Dei gratia Angliæ, Scotiæ, Franciæ & Hiberniæ Regis, fidei Defenſoris,* &c. *Nono Annoque Dom.* 1704.]

The Condition of this Obligation is ſuch, That if the above-bounden [*Benjamin Bidfare* of *London* Merchant, his Heirs, Executors, and Adminiſtrators for his and their Parts and Behalfs, do in all Things well and truly ſtand to, obey, abide by, perform, fulfill, and keep the Award, Order, Arbitrament, final End and Determination of [*Anthony Aimwell* and *Michael Makepeace* of *London*, Merchants] Arbitrators indifferently named, elected and choſen, as well on the part and behalf of the above-bounden [*Benjamin Bidfare*] as of the above-named [*William Wellmeant*] to arbitrate, award, order, judge and determine

termine of and concerning all, and all manner of Action and Actions, Cause and Causes of Actions, Suits, Bills, Bonds, Specialties, Judgments, Executions, Extents, Quarrels, Controversies, Trespasses, Damages and Demands whatsoever, at any Time or Times heretofore had, made, moved, brought, commenced, sued, prosecuted, done, suffered, committed or depending by or between the said Parties, so as the said Award be made [and given up in Writing under their Hands and Seals ready to be delivered to the said Parties] on or before the [Fourth Day of *June* next ensuing the Date above-mentioned.] But if the said Arbitrators do not make such their Award of and concerning the Premises by the Time aforesaid; That then, if the said [*Benjamin Bidfare*] his Heirs, Executors and Administrators, for his and their part and behalf, do in all Things well and truly stand to, obey, abide, perform, fulfill and keep the Award, Arbitrament, Umpirage, Final End and Determination of [*Ferdinando Finishall* of *London* Esquire, Umpire indifferently chosen] between the said Parties of and concerning the Premises, so as the said Umpire do make his Award or Umpirage of and concerning the Premises, and deliver the same in Writing under his Hand and Seal to the said Parties on or before the [Fourteenth Day of *June* next ensuing the Date above-said.] Then this Obligation to be void, or else to remain in full Force, Strength and Virtue.

Sealed and Delivered (being stamp'd according to Act of Parliament) *in the presence of*
A. B.
C. D.

Benjamin Bidfare.

But note, that if there is to be no Umpire you must omit the latter End, from [But if the said Arbitrators, *&c.*]

§ 2. *A Bill of Debt.*

Know all Men by these Presents, That I *Nicholas Needam* of *London*, Draper, do owe and am indebted unto *Christopher Creditmuch* of *London*, Merchant, the Sum of Eight Hundred Fifty Two Pounds of lawful *English* Coin, which said Sum I promise to pay unto the said *Christopher Creditmuch*, his Executors, Administrators or Assigns, on or before the Twenty Fourth Day of *June* next ensuing the Date hereof. Witness my Hand and Seal the First Day of *January*, 1706.

Sealed and Delivered in the presence of
Barthol. Bookall.
Peter Pettycash.

Nich. Needem.

But if the Bill of Debt is for Money borrowed it may run thus:

REceived and Borrowed of *Christopher Creditmuch* of *London* Merchant, Eight Hundred Fifty Two Pounds, which I do hereby promise to pay at Demand; Witness my Hand, *June* 1. 1704.

852 *l.* 00 : 00 *Nich. Needy.*

§. 4. *An Inland Bill of Exchange.*

Norwich, June 1. 1704.

AT four Days sight pay unto Mr. *Miles Moneylove*, or his Order, One Hundred Thirty Two Pounds, value received of *Edmund Easie*, and place it to Account as *per* Advice of

To Mr. Paul Punctual *at the* Ship *in* Grace-Church-Street, London. *Your humble Servant* David Draw-well.

§. 4. *A Foreign Bill.*

London, April 10, 1706. for 1000 ps. 8, at 53 $\frac{1}{8}$ *d.* Sterl. *per* ps. $\frac{f}{8}$.

AT three Usance pay this my first Bill of Exchange unto Mr. *Peter Peterany*, or his Order, One Thousand pieces of Eight, *Mexico* Exchange, at 53 Pence $\frac{1}{8}$ Sterling *per* piece of Eight, for the Value receiv'd of *Andreas Amantotis*, and pass it to Account, as *per* Advice of

To Mr. Peter Paygood *Merchant in* Leghorn. *Your Real Friend,* (*Vide* Ch. 11. §. 1.) Edm. English.

§. 5. *The Form of a Bill of Lading.*

(Note, *That the Words between* [ ] *are Blanks filled up.*)

SHipped by the Grace of God in good order and well conditioned by [*Francis Fraightwell* of *London*, Merchant, and Company] in and upon the good Ship called [the *Straights-Merchant* of *Dover*] whereof is Master under God, for this present

present Voyage, [*Samuel Sailtrue* of *London*] Mariner, and now riding at Anchor [in the Port of *London*,] and by God's Grace bound for *Leghorn* in *Italy*; to say, [One Bale of Woollen-Cloth, one Cask of Tin in Blocks, and one Cask of Refined Sugar; Contents, *&c.* as *per* Invoyce] being marked and numbered as in the Margent, and are to be delivered in the like good order and well conditioned at the aforesaid Port of [*Leghorn*] (the Danger of the Sea only excepted) unto Mr. *David Dealfair* Merchant there] or to his Assigns, he or they paying Fraight for the said Goods, [two Lyon Dollars *per* Hundred Weight for the Tinn and Copperas, and one Lyon Dollar and a half *per* Cloth] with Primage and Average accustomed. In witness whereof the Master or Purser of the said Ship hath affirmed to [Three] Bills of Lading all of this Tenor and Date, one of which [Three] Bills being accomplished the other [Two] to stand void. And so God send the good Ship to her desired Port in Safety. *Amen.*

No 1, 2, 3.

Dated in [London *the Fourth Day of* May, Anno Dom. 1706.]
Insides and Contents unknown to Samuel Sailtrue.

§. 6. *The Form of a Bill of Parcels for Goods bought at Time.*

Mr. *Kendrick Keeptouch*, *London*, *April* 4. 1697.

BOught of *Phineas Faith* 4 Bales of *French* Cloth, to pay at 6 Months, as follows.

		l. s. d.	*l. s. d.*
No 4 *qt.*	3½ pieces Dowlas at	3:06:0 each	11:11:00
7	4 pieces *Ditto* — at	4:10:0 —	18:00:00
8	3 pieces *Ditto* — at	4:15:0 —	14:05:00
14	3 ps. Lockrams — at	2:15,6 —	08.06:06
	13½ pieces in all, at	—	52:02:06

Another

Another Bill of Parcels.

Mr. *Peter Paydown*, and Comp. *London, April* 10. 1706.

BOught of *Titus Tradewell* for preſent Money, Twelve Baggs of Cotton, *viz.*

	C.	q.	lb.
N°. 1 — qt.	3	1	17
2 —	2	2	10
5 —	2	3	05
6 —	3	0	23
	11	3	27
	12	1	01
	24	1	00 Total Groſs.
	00	3	13 Tare.
	23	1	15 Suttle 2619 *l.*
			Tret— 100½ *l.*
			Nett—2518½ at 14*d. per* lb. 146:18:3

	C.	q.	lb.
N°. 7 —	2	3	16
12 —	3	1	10
20 —	3	0	27
21 —	2	3	04
	12	1	01

More, *viz.*

	C.	q.	lb.	
N°. 30 —	2	3	12	Damag'd.
31 —	3	0	10	
32 —	3	1	26	
40 —	2	2	16	
	12	0	08	Groſs.
	0	1	20	Tare.
	11	2	16	Suttle 1304 *l.*
				Tret—50
				Nett—1254 at 4*d. per* lb.—20 : 18 : 00
				l. 167 : 16 : 03

§. 7. *The*

§. 7. *The Form of a Bill of Entry at the Custom-House.*

June 1. 1704.

IN the *Streights-Merchant*, *Sam. Sailtrue* for *Leghorn*.

Francis Fraightwell.

Nine short Cloths.
Fourteen Hundred Three Quarters of *Tin.*
Six Hundred One Quarter and Twenty Four Pound Double Refined *Sugar.*

§. 8. *A Form of a Bill of Sale.*

The most usual Bill of Sale among Traders is, when a Person wanting a Sum of Money, deposits Goods as a Security to the Lender, which Goods, in Case the Sum borrowed is not repaid with Interest at a Time prefix'd, are forfeited to the Creditor.

It runs thus:

Know all Persons whom it may Concern, That I *Lazarus Lackcash* of *Norwich* in the County of *Norfolk* Goldsmith, for and in Consideration of Fifty Pounds of Lawful Money of *England* to me in Hand, paid by *Dives Doubledun* of *London* Esquire, the Receipt whereof I do hereby acknowledge, have bargain'd, sold and delivered, and by these Presents, according to the due Form of Law, do Bargain, Sell, and Deliver unto the said *Dives Doubledun* four Carats of Oriental Pearl, Nine Grains of brait Diamonds, one Silver Tea Pot weight 20 Ounces, one Silver Salver weight 10 Ounces, two Sets of Silver Casters weight 30 Ounces, and ten Cornelian Rings, Sealed up by Consent with my Seal, To *have and to hold* the said bargained Premises unto the said *Dives Doubledun*, his Executors, Administrators and Assigns for ever. And I the said *Lazarus Lackcash*, for my self, my Executors and Administrators, the said bargain'd Premises unto the said *Dives Doubledun*, his Executors, Administrators and Assigns against all Persons, shall and will warrant and for ever defend by these Presents,

Provided

Provided nevertheless, That if I the said *Lazarus Lackcash*, my Executors, Administrators and Assigns, or any of us, do and shall well and truly pay or cause to be paid unto the said *Dives Doubledun*, his Executors, Administrators or Assigns, the Sum of Fifty Pounds Principal, and Thirty Shillings, half a Years Interest thereof, on the first Day of *November* next ensuing the Date hereof, for Redemption of the said bargained Premises; Then this present Bill of Sale shall be void, or else to remain in full force: In *Witness* whereof I have hereunto set my Hand and Seal the first Day of *May*, *Anno Dom.* 1706. And in the Fifth Year of the Reign of our Sovereign Lady *Anne*, Queen of *England*.

Seal and Delivered, &c.
A. B.
C. D.

Lazarus Lackcash.

§. 9. *A Form of a Charter-Party of Affraightment.*

What a Charter-Party is you will find in the Dictionary and elsewhere, which will also appear very plain in this following Form, to be given to the Merchant by the Master, and the like by the Master to the Merchant mutually Sign'd, *&c.*

THIS Charter-Party of Affraightment indented, made and agreed upon the Twenty first Day of *April*, *Anno Dom.* 1706, and in the Fifth Year of the Reign of our Sovereign Lady *Anne*, Queen of *England*, &c. Between *Herbert Haulaway* of *Deptford* Mariner, Master (under God) of the Good Ship or Vessel called the *Fortunate*, of the Burthen of Three Hundred Tuns or thereabouts, now riding at Anchor in the Port of *Plymouth* of the one part, and *Giles Growrich* of *Portsmouth* in the County of *Hants*, Merchant, of the other part, Witnesseth, That the said Master hath granted and lett to Freight the said Vessel unto the said Merchant; and the said Merchant hath hired the said Vessel for a Voyage with her to be made in manner and form following; That is to say, The said *Herbert Haulaway* for himself, his Executors and Administrators doth Covenant, Promise and Grant to and with the said *Giles Growrich*, his Executors and Administrators by these Presents, That the said Vessel with the first fair Wind that

that God ſhall ſend after the Twentieth Day of *May* next enſuing the Date above, ſhall depart from the ſaid Port of *Plymouth* with ſuch lawful Goods and Merchandizes, as it ſhall pleaſe the ſaid *Giles Growrich*, or his Aſſigns in the mean time to Lade on board her: And that it ſhall be lawful to and for the ſaid *Giles Growrich*, his Factors and Aſſigns in the mean time to Lade aboard her all ſuch lawful Goods and Merchandizes as he or they ſhall think fit, which ſhe may reaſonably carry over and above her Victuals, Tackle and Apparel. And that the ſaid Veſſel ſhall, by God's Grace, directly as Wind and Weather will ſerve, Sail unto the Port or Harbour of *Aleppo* in *Turky*, and there deliver unto the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors and Aſſigns, all ſuch Goods and Merchandizes as ſhall be Laden on Board of her by the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns, dry and well condition'd, Danger of the Sea, Fire, Enemies, and Embargo of Princes only excepted. And after her clearing and right diſcharge of ſuch Goods as ſhe ſhall receive into her within the ſaid Port of *Plymouth*, ſhall receive in the ſaid Port of *Aleppo* her full Lading in ſuch Lawful Goods and Merchandizes as it ſhall pleaſe the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns, to Lade or cauſe to be Laden aboard her; and after ſuch her full Lading at the Port of *Aleppo* aforeſaid, ſhall directly Sail as Wind and Weather will permit to the ſaid Port or Harbour of *Plymouth* aforeſaid, and there deliver to the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns, within the ſpace of ten Working Days hereafter mentioned, the ſaid Goods and Merchandizes ſo received into her at *Aleppo* aforeſaid, dry and well conditioned, and make a right Diſcharge and End of the ſaid Voyage, the Danger of the Sea, Fire, Enemies, and Embargo of Princes and Rulers only excepted: And that the ſaid Veſſel, after her Arrival at *Aleppo* aforeſaid, ſhall ſtay at Anchor there for her Unlading and Relading fifty Working Days, and ſhall ſtay at Anchor at the ſaid Port of *Plymouth*, after her Return again and Arrival there from *Aleppo* aforeſaid, 10 Working Days, for the Delivery of the ſaid Goods ſo to be Laden aboard her at *Aleppo* aforeſaid; and the ſaid *Giles Growrich*, for himſelf, his *Executors* and *Adminiſtrators*, doth farther Covenant, Promiſe, and Grant to and with the ſaid *Herbert Haulaway*, his Executors

Executors and Adminiſtrators, and alſo warrant by theſe Preſents, the ſaid Veſſel at her Departure from the ſaid Port of *Plymouth*, and during the ſaid Voyage, ſhall be ſtrong and ſtaunch, and ſufficiently Victualled, Tackled and Apparelled, and furniſhed with Maſts, Sails, Sail-Yards, Anchors, Cables, Ropes, Cords, Tackle, Apparel, Boat, and all other Furniture whatſoever requiſite or needful for ſuch a Veſſel for ſuch a Voyage. And the ſaid *Giles Growrich*, for himſelf, his Executors and Adminiſtrators, doth Covenant and Grant to and with the ſaid *Herbert Haulaway*, his Executors and Adminiſtrators, not only to Unlade and Relade, and diſpatch away the ſaid Veſſel at and from *Aleppo* and *Plymouth* aforeſaid, within the Time and Times before therefore limited and agreed upon, but alſo for the Freight or Hire of the ſaid Ship or Veſſel for all the ſaid Voyage, *viz.* from *Plymouth* to *Aleppo*, and from thence to *Plymouth*, well and truly pay or cauſe to be paid unto the ſaid *Herbert Haulaway*, his Executors, Adminiſtrators or Aſſigns, the Sum of Three Hundred and Fifty Pounds of lawful *Engliſh* Coin in manner and form following, that is to ſay, The Sum of Fifty Eight Pounds at the ſaid Port of *Aleppo* within Twenty Days next after the Arrival of the ſaid Ship or Veſſel, and Delivery of the ſaid Goods well conditioned at *Aleppo* aforeſaid. and Two Hundred Ninety Two Pounds more, Reſidue of the ſaid Three Hundred and Fifty Pounds at *Plymouth* aforeſaid, within Ten Working Days after the Return again and Arrival of the ſaid Ship or Veſſel from *Aleppo* to *Plymouth*, and the Delivery of the ſaid Goods to be received into her at *Aleppo* aforeſaid, unto the ſaid *Giles Growrich*, his Executors, Adminiſtrators, Factors or Aſſigns at *Plymouth* aforeſaid, well conditioned as aforeſaid; together with Primage and Average, according to the Uſe and Cuſtom of Merchants. And the ſaid *Giles Growrich*, for himſelf, his Heirs, Executors, and Adminiſtrators, doth Covenant and Grant to and with the ſaid *Herbert Haulaway*, his Executors and Adminiſtrators by theſe Preſents, that in Caſe the ſaid Veſſel ſhall thro' the default of the ſaid *Giles Growrich*, his Factors or Aſſigns, ſtay for her Unlading or Relading at *Aleppo* aforeſaid, before her Departure from thence; or for her Unlading at *Plymouth* aforeſaid, and after her Return and Arrival from *Aleppo* aforeſaid, to *Plymouth* aforeſaid, after the ſeveral Days therefore above-mentioned, That then the ſaid *Giles Growrich*,

his Executors or Administrators shall and will pay, or cause to be paid unto the said *Herbert Haulaways*, his Executors or Administrators the Sum of Thirty Shillings Sterling for every Working Day that the said Vessel shall either stay at *Aleppo* for her Unlading and Relading, or at *Plymouth* aforesaid, for her Lading or Unlading after the Days above limited and agreed upon; and to the performance of all and singular the Covenants and Agreements above-mentioned, which on the part and behalf of the said *Herbert Haulaway*, his Executors or Administrators, are to be performed in all Things as above-said, the said *Herbert Haulaway* bindeth himself, his Executors and Administrators, and especially the Ship or Vessel aforesaid, with her Freight, unto the said *Giles Growrich*, his Executors and Administrators in the Sum or Penalty of Four Hundred Pounds of Lawful Money of *England*, well and truly to be paid by these Presents; and likewise for the Performance of all and singular the Covenants and Agreements above-mentioned, which on the part and behalf of the said *Giles Growrich*, his Executors, Administrators, are and ought to be performed in all Things, as are above recited, the said *Giles Growrich* bindeth himself, his Executors and Administrators and Goods, unto the said *Herbert Haulaway*, his Executors and Administrators, in the Sum or Penalty of Four Hundred Pounds of like Money of *England*, well and truly to be paid by these Presents. In *Witness* whereof, the Parties first above-named to these Charter-parties Indented, interchangeably have set their Hands and Seals, the Day and Year first above-written.

Sealed and Delivered, &c. *Herbert Haulaway.*

§. 10. *The Form of a General Release.*

KNOW all Men by these Presents, That I *Henry Haveall* of *London* Merchant, have Remised, Released, and for ever quit Claim, and by these Presents do for me, my Heirs, Executors and Administrators, Remise, Release, and for ever quit Claim unto *Lewis Lightpocket*, Citizen and Larimer of *London*, his Heirs, Executors and Administrators, all and all manner of Actions, Cause and Causes of Actions, Suits, Bills, Bonds,

Bonds, Writings, Obligations, Debts, Dues, Duties, Accounts, Sum and Sums of Money, Judgments, Executions, Extents, Quarrels, Controversies, Trespasses, Damages and Demands whatsoever, both in Law or Equity, or otherwise howsoever, which against the said *Lewis Lightpocket* I ever had, now have, and which I, my Heirs, Executors and Administrators shall, or may have, claim, challenge or demand, for or by Reason or Means of any Matter, Cause or Thing, from the Beginning of the World to the Day of the Date of these Presents: In Witness whereof I have hereunto set my Hand and Seal the Tenth Day of *April*, *Anno Dom.* 1706.

Sealed and Delivered in the Presence of
Simon Saywell.
Lawr. Lackwitt.

Henry Heveall.

§. 11. *The Form of an Invoyce or Factory.*

INvoyce (or Factory) of 6 Hogsheads of Tobacco, 12 Barrels of Orgall, 5 Bags of Shomack, 3 Chests of Sugar, and 3 Bales of Woollen-Cloth, Shipt on Board the *Streights-Merchant*, *Theophilus Throughpaste* Master, for the proper Account and Risque of *Marmaduke Maridani*, Merchant in *Leghorn*, and consign'd to himself, being mark'd and number'd as *per* Margent; Contents, Costs and Charges, as follows.

Best bright Tobacco 6 Hogsheads, *viz.*

		C. Q. lb.		C. Q. lb.		C. Q. lb.		C. Q. lb.
No. 1	*qt.*	2 : 3 : 07,	Tare	0 : 2 : 14	No. 4	4 : 1 : 27	Tare	0 : 3 : 04
2		3 : 1 : 10,	Tare	0 : 2 : 20	5	2 : 2 : 20	Tare	0 : 2 : 10
3		3 : 3 : 00,	Tare	0 : 2 : 00	6	5 : 2 : 10	Tare	0 : 3 : 12
Gross		9 : 3 : 17,		1 : 3 : 06 Tare		12 : 3 : 01	Gross	2 : 0 : 26 Tare.
Gross		12 : 3 : 01						1 : 3 : 06 Tare.
		22 : 2 : 18 Total Gross.						4 : 0 : 04 Tot. Ta.
		4 : 0 : 04 Tare						
		18 : 2 : 14 Suttle, 2086 *lb.*						
		Tret, 80 *lb.*					*l.*	*s.* *d.*
		Nett, 2006 *lb.* at 7½*d. per* Pound						62 : 13 : 09

Orchal, *viz.*

No. 7. to 18 *qt.* 12 Barrels at 14 *s. per* Barrel ——— 08 : 08 : 00

Shomack 5 Baggs, *viz.*

		C. Q. lb.		C. Q. lb.
No. 19	*qt.* Nett.	2 : 2 : 07	No. 22	3 : 0 : 06
20		2 : 0 : 24		2 : 1 : 20
21		1 : 3 : 17		
		6 : 2 : 20		5 : 1 : 26
		5 : 1 : 26		

In all 12 : 0 : 18 at 12 *s. per* Hundred 07 : 05 : 11

Sugar Double Refin'd 3 Chests, *viz.*

No. 24 381 *lb.*

25 505½ *lb.*

26 326 *lb.*

1212 Nett at 18 *d. per* Pound ——— 90 : 18 : 00

Cloth 3 Bales, *viz.*

No. 27, 28, 29 *qt.* each (with Wrappers) 10 short Cloths at 12 *l. per* Cloth ——— 360 : 00 : 00

l. *s.* *d.*

——— 529 : 05 : 08

Charges, *viz.*

To Custom of all	053 : 19 : 09½
To Costs of 3 Chests for the Sugar	000 : 18 : 00
Ditto of 3 Wrappers for the Cloth	000 : 07 : 00
Brokeage at ½ *per Cent.*	002 : 12 : 00½
Storage	001 : 00 : 00
Cartage and Porterage	000 : 10 : 06
	588 : 13 : 10
To my Commission at 2½ *per Cent.*	014 : 14 : 04

Laus Deo, London *May* 4. 1706. Errors excepted *per Timothy Trusty.*

§. 12.

§. 12. *The Form of a Letter of Credit.*

The Forms of Letters of Credit may be various and yet valid and authentick, one of which may serve, if it be of this Nature, to be altered according to the Circumstances of the Correspondents. (*Vide* the Dictionary) Example.

SIR,

THE last of Yours which I received, was dated the 24 *Ultimo*, by which I understand you have mine of the 20 *Ditto*, and I hope by this Time you have accomplish'd the Affair therein mentioned; as to the Purport of Yours, assure your self, it shall be punctually observed, of which more *per* next; in the *interim* I intreat you to furnish the Bearer hereof, Mr. *Matthew Meanwell*, with the Sum of Fifty Six Pounds Sterling, at such Time as he shall require the same, and place it to my Account, for which this my Letter of Credit, together with his Receipt, shall be your sufficient Voucher and Warrant, giving, (upon Payment) a Line or two of Advice to

To Mr. Nicholas Neverfail
Merchant in Hull.
London, May 1. 1706.

Your real Friend and Servant,
Samuel Standfast.

§. 13. *The Form of a Letter of Licenſe.*

TO all People whom this present Writing shall come, We whose Names are underwritten, Creditors of *Oliver Overshot* of *London* Haberdasher, send Greeting: *Whereas* the said *Oliver Overshot* at this present Time doth stand indebted and justly oweth unto us, the said Creditors of him the said *Oliver Overshot*, divers and sundry Sums of Money, which by reason of many Debts (and some of them very great) that are likewise justly owing to him the said *Oliver Overshot*, and cannot be recovered without some Time of Respite, he is very much disabled at present to make payment unto his said Creditors our whole and just Debt, as he seemeth willing and desirous: In consideration whereof he instantly desireth us, That we the said Creditors, and every of us, would be pleased to give and grant unto him the said *Oliver Overshot*,

Overſhot, his Executors, Adminiſtrators or Aſſigns, ſuch Liberty and Reſpite of Time for the Payment and Satisfaction of our ſeveral Debts, as he thinketh reaſonable for the obtaining, getting and recovering of his ſaid Debts; that is to ſay, That we and every of us would be content to take and accept of our whole Debts in the ſpace of two full Years next after the Date hereof, to be divided into two equal Parts, to be paid at two ſeveral Payments, in Manner and Form following, *viz.* The firſt Payment thereof to be made on the firſt Day of *May* next enſuing the Date hereof, which ſhall be in the Year of our Lord 1705. And the other Payment or Moiety, the Reſidue thereof, to be paid on the firſt Day of *May*, which ſhall be in the Year of our Lord 1706, in full Payment and Satisfaction of the ſaid ſeveral Debts. And for the more full Performance of the ſaid ſeveral Payments in ſuch Manner and Form as is above limited and declared, according to the true meaning of theſe Preſents, he the ſaid *Oliver Overſhot* ſhall or will at or before the Tenth Day of this Inſtant *May*, become bound unto us the Creditors reſpectively by one Obligation in due Form of Law to be made, including all and every the Payments in ſuch Sort as is above expreſſed, and the Penalty of every Obligation to be double the whole Sum, included in the Condition of the ſame, to be delivered to us, and every of us, our Executors or Aſſigns, at or before the ſaid Tenth Day of *May* next enſuing the Date hereof: *Know ye therefore*, that we the ſaid Creditors whoſe Names are ſubſcrib'd, and every of us for his own Part, and for his Executors, Adminiſtrators and Aſſigns, for the Condition abovementioned, do by theſe Preſents willingly conſent, promiſe, covenant and agree to and with the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators and Aſſigns, by theſe Preſents, that we the ſaid Creditors, and every of us, our Executors, Adminiſtrators and Aſſigns, ſhall and will accept of the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators and Aſſigns, all and every the ſaid Debts and Sums of Money by the ſaid *Oliver Overſhot* unto us and every of us owing and payable upon ſuch Obligations, Aſſurance upon Aſſurances as aforeſaid, to be paid in ſuch manner, and at ſuch Days and Times as is above limited and required. *And further*, We the ſaid Creditors and every of us, our and every of our Executors, Adminiſtrators and Aſſigns reſpectively, upon the delivery of the ſaid Obligation to us and every of us, our Executors,

Executors, Adminiſtrators and Aſſigns, ſhall and will at the the Charge of the ſaid *Oliver Overſhot*, his Executors, Adminiſtrators and Aſſigns, Seal, Subſcribe, and deliver in due Form of Law unto the ſaid *Oliver Overſhot*, our ſufficient General Releaſe to bear Date and Limitation before the Day of the Date of the ſaid new Obligation to be made of the ſame Date. *In Witneſs* whereof we the ſaid Creditors have hereunto ſet our Hands and Seals the Second Day of *May*, in the Third Year of the Reign of our Sovereign Lady *Anne*, Queen of *England*, &c. and in the Year of our Lord God, 1704.

See [Letter of Licenſe] *in the Dictionary.*]

Patrick Peaceable, ⊙
Henry Hopewell, ⊙
Tho. Truelove, ⊙

§. 14. *The Form of a Note for paying Money.*

I Promiſe to pay unto Mr. *Ferdinando Freeman* or Order, on Demand, Six Hundred Eighty Five Pounds. *London May* 6. 1704.

685 *l.* *Chriſtopher Covetmore.*

(*Vide* Ch. 11. §. 1. Art. 40.

§. 15. *The Form of a Policy or Inſurance of Goods in a Ship.*

IN the Name of God, *Amen*. *William Wiſe* of *London*, Merchant, as well in his own Name as for and in the Name and Names of all and every other Perſon or Perſons to whom the ſame doth, may or ſhall appertain in part or in all, doth make Aſſurance, and cauſeth himſelf, and them, and every of them to be Inſured, Loſt, or not Loſt, from *London* to *Cales* upon any kind of Goods and Merchandizes whatſoever, loaden or to be loaden on Board the Good Ship called the *Antelope*, Burden Three Hundred Tuns, or thereabout, whereof is Maſter, under God, for this preſent Voyage *Steven Steerwell*, Mariner, or whoſoever elſe ſhall go for Maſter in the ſame Ship, or by whatſoever Name or Names the ſaid Ship or Maſter thereof is, or ſhall be named or called, beginning the Adventure

ture upon the said Goods and Merchandizes, from and immediately following the Loading thereof aboard the said Ship at *London*, and so shall continue and endure until the said Ship with the said Goods and Merchandizes whatsoever shall be arrived at *Cadiz*, and the same there safely landed. And it shall be Lawful for the said Ship in this Voyage to stop and stay in any Port and Place whatsoever, without Prejudice to this Insurance. And the said Goods and Merchandizes by agreement are, and shall be valued at the Sum of Four Hundred Pounds Sterling, without farther account to be given by the Assurers for the same. Touching the Adventures and Perils which we the Assurors are contented to bear, and do take upon us in this Voyage, they are of the Seas, Men of War, Fire, Enemies, Pyrates, Rovers, Thieves, Jettizens, Letters of Mart, and Counter-Mart, Surprizals, Takings at Sea, Arrests, Restraints and Detainments of all Kings, Princes and People, of what Nation, Condition or Quality soever, Baratry of the Master or Mariners, and all others, Perils, Losses and Misfortunes that are or may come to the Hurt, Detriment or Damage of the said Goods or Merchandizes, or any part thereof. And in case of any Loss and Misfortunes it shall be lawful for the Assureds, their Factors, Servants or Assigns to Sue, Labour and Travel for, in and about the Defence, Safeguard and Recovery of the said Goods and Merchandizes, or any part thereof without Prejudice to this Insurance, to the Charges whereof we the Assurors will contribute each and according to the Rate and Quantity of his Sum herein assured. And it is agreed by us the Insurors, that this Writing or Policy of Insurance shall be of as much Force and Effect as the surest Writing or Policy of Insurance heretofore made in *Lombard-street*, or elsewhere made in *London*. And so we the Assurors are contented, and do hereby promise and bind our selves, each one for his own part, our Heirs, Executors and Goods to the Assureds, their Executors, Administrators and Assigns, for the true performance of the Premises, confessing our selves paid the Consideration due unto us for this Assurance by the said *William Wise*, after the Rate of Eight Pounds Sterling, *per Cent.* warranted to depart with Convoy.

In Witness thereof we the Assurors have subscribed our Names and Sums Insured in *London*, Dated the First Day of *May*, 1706.

Memo-

Memorandum, The Aſſurors do hereby Covenant, Promiſe and Oblige themſelves, their Heirs, Executors and Goods, in Caſe of Loſs happening (which God forbid) to ſatisfy and pay their ſeveral Sums of Money herein aſſured upon the Abatement of 10 Pounds *per Cent*, and no more, Provided always that they pay their reſpective Sums of Money by them aſſured according to Subſcription, within one Month after Notice thereof, otherwiſe no Abatement whatſoever to be made, but to pay their full Sums according to each Man's Subſcription, any Uſe or Cuſtom to the contrary notwithſtanding. Written the Day aforeſaid.

I (*A. B.*) am contented with this Inſurance for One Hundred and Fifty Pounds; Witneſs my Hand, *London, Anno Dom.* 1706. } 150

A. B.

I (*C. D.*) am contented with this Inſurance for One Hundred Pounds; Witneſs my Hand, *London, Anno Dom.* 1706. } 100

C. D.

I (*E. F.*) am contented with this Inſurance for One Hundred and Fifty Pounds; Witneſs my Hand, *London, Anno Dom.* 1706. } 150

E. F.

§. 16. *Proteſt of a Foreign Bill.*

KNOW all Perſons whom this preſent Writing may concern, That the Second Day of *April*, 1706. at the Requeſt of Mr. *Richard Rich* of *London* Merchant, I *Iſaac Sharp*, Publick Notary, Sworn and admitted by Authority of her Sacred Majeſty *Anne*, Queen of *England*, *&c.* did go to the Dwelling-Houſe of Mr. *Paul Puttoff*, upon whom the abovenamed Bill of Exchange is drawn, and ſhewed the Original unto the ſaid Mr. *Paul Puttoff*, demanding his Acceptance of the ſame, who anſwered me, he would not accept the ſaid Bill for Reaſons beſt known to himſelf, of which he ſhould inform the Drawer Mr. *Frederick Farfetch*. Wherefore I the ſaid Notary did Proteſt, and by theſe Preſents do Proteſt as Well

 againſt

againſt the ſaid *Frederick Farfetch*, as againſt the ſaid *Paul Putteff*, as alſo againſt all other Perſons, Endorſers, and others therein concerned, for all Changes, Rechanges, Charges, Damages and Intereſt whatſoever. In preſence of *A. B.* and *C. D.* called for Witneſſes to this preſent Act done in my Office in *London*, the Day and Year aboveſaid.

Iſaac Sharp, Publick Notary.

Note, That this Proteſt is always inſerted or written under a Copy of the Bill. *Vide* Chap. 11. §. 1.

§. 17. *The Forms of Receipts.*

If the Receipt be giving in a Book, you need not mention the Man's Name of whom you receive, becauſe that is always imply'd, the Book being his: Thus (if the Receipt be for Goods formerly ſold.)

REceiv'd *April* the 1ſt, 1706. Forty Eight Pounds Seven Shillings and Four Pence, in full Payment. } 48 : 07 : 04

Daniel Dunwell.

If a Receipt be given upon ſome other Account, to one that keeps no Book for Receipts, by one for Account of another, it will run thus;

June 1. 1706.

REceiv'd of Mr. *Andrew Allpaid*, by Order and for Account of Mr. *Humphrey Hoardnone*, 100 Pound; I ſay receiv'd as aforeſaid— } 100 : 00 : 00

per *Tho. Truſty.*

A Rent-Gatherer's Receipt.

REceiv'd *April* the 6th, 1706. of Mr. *Lewis Landlove* 25 Pounds, in full for half a Year's Rent due at *Chriſtmas*-Day laſt, out of which deducted for Taxes 5 Pounds, and for Repairs 2 Pounds: I ſay receiv'd for the Uſe of *Rob. Richer*, Eſq; by Virtue of his Letter of Attorney— } 25 : 00 : 00

By me *Chriſtopher Countwell.*

A Receipt